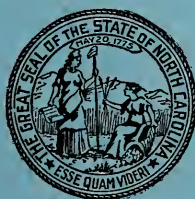


BULLETIN
OF
A. & T. COLLEGE

Published by
**THE AGRICULTURAL AND TECHNICAL
COLLEGE OF NORTH CAROLINA**

~~~~~  
*Obedience to the Law is the Largest Liberty*



**Issued Quarterly**  
**GREENSBORO, NORTH CAROLINA**  
**CALENDAR 1947-1948**

Entered as second-class matter, July 2nd, 1909, at the Post  
Office at Greensboro, N. C., under the act of July 16th, 1894.



Vol. 38

May, 1947

No. 3

---

BULLETIN  
OF THE  
**Agricultural *and* Technical  
College**

OF NORTH CAROLINA  
(Co-Educational Institution)

---

**FIFTY-SECOND ANNUAL CATALOGUE**  
**1946-1947**

**With Announcements for**  
**1947-48**

---

Recognized as A STANDARD "A" GRADE COLLEGE  
by the North Carolina Department of Education, the  
Council of Education of the State of Pennsylvania, the  
American Medical Association, the Southern Association of Colleges and Secondary Schools.

---

GREENSBORO, NORTH CAROLINA

# 1947

| JANUARY              | APRIL                | JULY                    | OCTOBER                 |
|----------------------|----------------------|-------------------------|-------------------------|
| S M T W T F S        | S M T W T F S        | S M T W T F S           | S M T W T F S           |
| 1 2 3 4              | 1 2 3 4 5            | 1 2 3 4 5               | 1 2 3 4                 |
| 5 6 7 8 9 10 11      | 6 7 8 9 10 11 12     | 6 7 8 9 10 11 12        | 5 6 7 8 9 10 11         |
| 12 13 14 15 16 17 18 | 13 14 15 16 17 18 19 | 13 14 15 16 17 18 19    | 12 13 14 15 16 17 18    |
| 19 20 21 22 23 24 25 | 20 21 22 23 24 25 26 | 20 21 22 23 24 25 26    | 19 20 21 22 23 24 25    |
| 26 27 28 29 30 31    | 27 28 29 30          | 27 28 29 30 31          | 26 27 28 29 30 31       |
| FEBRUARY             | MAY                  | AUGUST                  | NOVEMBER                |
| S M T W T F S        | S M T W T F S        | S M T W T F S           | S M T W T F S           |
| 1                    | 1 2 3                | 1 2                     | 1                       |
| 2 3 4 5 6 7 8        | 4 5 6 7 8 9 10       | 3 4 5 6 7 8 9           | 2 3 4 5 6 7 8           |
| 9 10 11 12 13 14 15  | 11 12 13 14 15 16 17 | 10 11 12 13 14 15 16    | 9 10 11 12 13 14 15     |
| 16 17 18 19 20 21 22 | 18 19 20 21 22 23 24 | 17 18 19 20 21 22 23    | 16 17 18 19 20 21 22    |
| 23 24 25 26 27 28    | 25 26 27 28 29 30 31 | 24 25 26 27 28 29 30 31 | 23 24 25 26 27 28 29 30 |
| MARCH                | JUNE                 | SEPTEMBER               | DECEMBER                |
| S M T W T F S        | S M T W T F S        | S M T W T F S           | S M T W T F S           |
| 1                    | 1 2 3 4 5 6 7        | 1 2 3 4 5 6             | 1 2 3 4 5 6             |
| 2 3 4 5 6 7 8        | 8 9 10 11 12 13 14   | 7 8 9 10 11 12 13       | 7 8 9 10 11 12 13       |
| 9 10 11 12 13 14 15  | 15 16 17 18 19 20 21 | 14 15 16 17 18 19 20    | 14 15 16 17 18 19 20    |
| 16 17 18 19 20 21 22 | 22 23 24 25 26 27 28 | 21 22 23 24 25 26 27    | 21 22 23 24 25 26 27    |
| 23 24 25 26 27 28 29 | 29 30                | 28 29 30                | 24 25 26 27 28 29 30 31 |
| 30 31                |                      |                         |                         |

# 1948

| JANUARY              | APRIL                      | JULY                 | OCTOBER                 |
|----------------------|----------------------------|----------------------|-------------------------|
| S M T W T F S        | S M T W T F S              | S M T W T F S        | S M T W T F S           |
| 1 2 3                | 1 2 3                      | 1 2 3                | 1 2                     |
| 4 5 6 7 8 9 10       | 4 5 6 7 8 9 10             | 4 5 6 7 8 9 10       | 3 4 5 6 7 8 9           |
| 11 12 13 14 15 16 17 | 11 12 13 14 15 16 17       | 11 12 13 14 15 16 17 | 10 11 12 13 14 15 16    |
| 18 19 20 21 22 23 24 | 18 19 20 21 22 23 24       | 18 19 20 21 22 23 24 | 17 18 19 20 21 22 23    |
| 25 26 27 28 29 30 31 | 25 26 27 28 29 30          | 25 26 27 28 29 30 31 | 24 25 26 27 28 29 30 31 |
| FEBRUARY             | MAY                        | AUGUST               | NOVEMBER                |
| S M T W T F S        | S M T W T F S              | S M T W T F S        | S M T W T F S           |
| 1 2 3 4 5 6 7        | 1                          | 1 2 3 4 5 6 7        | 1 2 3 4 5 6             |
| 8 9 10 11 12 13 14   | 2 3 4 5 6 7 8              | 8 9 10 11 12 13 14   | 7 8 9 10 11 12 13       |
| 15 16 17 18 19 20 21 | 9 10 11 12 13 14 15        | 15 16 17 18 19 20 21 | 14 15 16 17 18 19 20    |
| 22 23 24 25 26 27 28 | 16 17 18 19 20 21 22       | 22 23 24 25 26 27 28 | 21 22 23 24 25 26 27    |
| 29                   | 23 24 25 26 27 28 29 30 31 | 29 30 31             | 28 29 30                |
| MARCH                | JUNE                       | SEPTEMBER            | DECEMBER                |
| S M T W T F S        | S M T W T F S              | S M T W T F S        | S M T W T F S           |
| 1 2 3 4 5 6          | 1 2 3 4 5                  | 1 2 3 4              | 1 2 3 4                 |
| 7 8 9 10 11 12 13    | 6 7 8 9 10 11 12           | 5 6 7 8 9 10 11      | 5 6 7 8 9 10 11         |
| 14 15 16 17 18 19 20 | 13 14 15 16 17 18 19       | 12 13 14 15 16 17 18 | 12 13 14 15 16 17 18    |
| 21 22 23 24 25 26 27 | 20 21 22 23 24 25 26       | 19 20 21 22 23 24 25 | 19 20 21 22 23 24 25    |
| 28 29 30 31          | 27 28 29 30                | 26 27 28 29 30       | 26 27 28 29 30 31       |

## **COLLEGE CALENDAR**

---

### **1947-1948**

September 13-16, 1947—Pre-Session Faculty-Staff Conference  
September 17—Entrance examinations  
September 17—Freshmen and New Students begin Registration and Orientation  
September 18—Continuation of Freshman Orientation  
September 19—Freshmen and New Students complete registration  
September 20-22—Registration of upperclassmen  
September 23—Classes begin  
September 27—Last day for changes in schedule  
December 16-19—Fall quarter examinations  
January 2, 1948—Registration for Winter Quarter  
January 5—Classes begin  
January 10—Last day for change in schedule  
March 16-19—Winter Quarter examinations  
March 22—Registration for Spring Quarter  
March 23—Classes begin  
March 31—Last day for change in schedule  
May 25-28—Spring Quarter examinations  
May 30—Baccalaureate  
May 31—Commencement

### **HOLIDAYS**

Thanksgiving, November 27, 28, 1947  
Christmas Holidays, December 20, 1947-January 2, 1948

### **SPECIAL DAYS**

Dudley Day—November 2, 1947  
Education Week—November 4-9  
Religious Emphasis Week—December 4-8  
Douglas' Birthday and Negro History Week (Joint Observance)—February 11-17  
Arbor Day—March 15—(Special program by School of Agriculture)  
Easter Holidays—Friday through Monday  
National Negro Health Week—April 1-7  
Morrill's Birthday—April 14—(Special programs by Agricultural and Mechanical Arts Societies)  
Farmers' Conference—August 13, 14, 15

## COLLEGE PUBLICATIONS

---

*The Bulletin of the A. and T. College* published annually as the official catalogue of the College.

*The Bulletin of the A. and T. College Summer Session*, published annually as the official catalogue of the Summer School.

*The Bulletin of the Graduate Division* of the A. and T. College, published annually.

*Annual Pictorial Issue* of the Bulletin.

*The A. and T. College Student Handbook*, published annually for general information and guidance of the students.

*The Register*, the official organ of the student body, published monthly. Edited and managed by the student body under the supervision of the College staff.

*Bulletin of the A. and T. College*, Research Supplement, October, 1944, and August, 1946.

*Bulletin of the A. and T. College*, Non-Collegiate Trade, Vocational and Special Courses.

# TABLE OF CONTENTS

(See also Index in last pages of Bulletin)

|                                                               | Page |
|---------------------------------------------------------------|------|
| I. Announcements .....                                        | 7    |
| II. Board of Trustees.....                                    | 12   |
| III. Officers of Administration and Faculty.....              | 13   |
| IV. History of the College.....                               | 26   |
| V. College Buildings .....                                    | 27   |
| VI. General Information .....                                 | 32   |
| Admission to College.....                                     | 32   |
| Classification of New Students.....                           | 33   |
| Student Load .....                                            | 34   |
| Course Numbering System.....                                  | 35   |
| Credit Evaluation System.....                                 | 36   |
| General Graduation Regulations.....                           | 36   |
| Student Organizations .....                                   | 37   |
| Scholarships and Prizes.....                                  | 40   |
| Expenses and Fees.....                                        | 44   |
| VII. Institutional Organization .....                         | 47   |
| The School of Agriculture .....                               | 47   |
| The School of Mechanic Arts .....                             | 53   |
| The School of Education and Sciences.....                     | 55   |
| The Graduate Division .....                                   | 62   |
| Vocational School .....                                       | 165  |
| VIII. Description of Courses.....                             | 69   |
| Agricultural Sciences .....                                   | 69   |
| a. Agronomy .....                                             | 70   |
| b. Animal Husbandry .....                                     | 73   |
| c. Poultry Science .....                                      | 75   |
| d. Horticulture .....                                         | 77   |
| e. Rural Engineering .....                                    | 80   |
| f. Agricultural Economics .....                               | 81   |
| g. Rural Sociology .....                                      | 82   |
| h. Agricultural Education and Vocational<br>Agriculture ..... | 83   |
| i. Geology .....                                              | 86   |
| Architectural Engineering .....                               | 86   |
| Biological Sciences .....                                     | 88   |
| a. Bacteriology .....                                         | 89   |
| b. Zoology .....                                              | 90   |
| c. General Science .....                                      | 91   |
| d. Botany .....                                               | 91   |
| Business Administration and Commercial<br>Education .....     | 94   |
| Chemistry .....                                               | 96   |



|                                                            | Page |
|------------------------------------------------------------|------|
| Education .....                                            | 99   |
| Electrical Engineering .....                               | 103  |
| English .....                                              | 106  |
| Fine Arts .....                                            | 111  |
| Foreign Languages .....                                    | 115  |
| Home Economics .....                                       | 118  |
| a. Foods and Nutrition.....                                | 120  |
| b. Clothing .....                                          | 120  |
| c. Home Improvement .....                                  | 121  |
| d. Home Administration .....                               | 121  |
| Industrial Education .....                                 | 123  |
| a. Commercial Industries .....                             | 125  |
| b. Industrial Arts .....                                   | 127  |
| c. Industrial and Vocational Education.....                | 130  |
| Mathematics .....                                          | 132  |
| Mechanical Engineering .....                               | 135  |
| Military Science .....                                     | 139  |
| Music .....                                                | 141  |
| Physical Education .....                                   | 145  |
| Physics .....                                              | 152  |
| Religion and Ethics .....                                  | 155  |
| Research .....                                             | 156  |
| Social Sciences .....                                      | 156  |
| a. History .....                                           | 158  |
| b. Political Science .....                                 | 160  |
| c. Geography .....                                         | 160  |
| d. Sociology .....                                         | 160  |
| e. Economics .....                                         | 162  |
| Vocational School .....                                    | 165  |
| a. Auto Mechanics .....                                    | 166  |
| b. Masonry .....                                           | 167  |
| c. Shoe Repairing and Leather Work.....                    | 168  |
| d. Carpentry .....                                         | 169  |
| e. Cabinet Making and Upholstering.....                    | 170  |
| f. Plumbing and Steamfitting.....                          | 172  |
| g. Secretarial Science .....                               | 173  |
| h. Tailoring .....                                         | 175  |
| i. Welding .....                                           | 176  |
| j. Electives in Vocational Courses.....                    | 177  |
| k. Dress Making and Garment Construction.....              | 180  |
| IX. Awards, 1946 .....                                     | 182  |
| X. Degrees and Certificates Conferred in 1946.....         | 184  |
| XI. Distribution of Enrollment by Counties and States..... | 189  |
| XII. Index .....                                           | 191  |



## ANNOUNCEMENTS

---

### NOTE ANNOUNCEMENTS—IMPORTANT TO EVERY STUDENT

1. **Vaccinations.**—Each student is required to be vaccinated on entering unless evidence be presented to satisfy the College Physician that vaccination is unnecessary.

2. **Lodging Deposits.**—Students should reserve rooms far in advance of the time of arrival by paying the room deposit of five dollars, which will later be credited to their account upon presentation of receipt.

3. **Examinations.**—Entrance examinations and examinations for removal of conditions will be held September 17. All students who have conditions to remove should avail themselves of this opportunity.

4. **Boarding Students.**—All students who room on the campus must take meals in a college cafeteria.

5. **Non-Resident Students.**—Students whose legal residence is not in Greensboro will not be permitted to board and lodge off the campus unless they have special permission or unless they have employment that requires them to live on the premises.

6. **Fraternity Houses.**—The College will not permit fraternities, sororities or other groups to establish "houses" off the campus.

7. **Student Load.**—Each regularly classified student will be required to register for 14 hours of work as a minimum. The maximum shall be 19 hours except as provided for by exceptional scholarship. Students carrying a normal load in regular classes will not be permitted to register for credit in evening or extension classes.

8. **Changes in Schedule.**—Students have one week from the beginning of each quarter in which to make adjustments in their schedule. After this time no changes will be permitted except by written permission of the Dean of the particular school. The Registrar will then recall the class card and discharge the student from the class.

No student will be allowed credit for courses added to his schedule without permission after it has been approved, and any student illegally dropping a course in which he has been registered will be assigned the grade "F" at the end of the quarter.

**9. Attendance.**—Students will be required to attend scheduled assemblies, vespers and the regular exercises of the courses in which they are registered.

**10. Deportment.**—Any student who manifests unwillingness to conform to the rules and regulations that are prescribed, or that may be prescribed to govern the student body, or any student whose influence or deportment seems detrimental to the best interests of the school will be asked to withdraw from the institution.

A student automatically forfeits his privilege of working for pay at the College when, for any reason, he is placed on probation because of misconduct.

**11. Scholarship.**—Students will be expected to do a passing grade of work at all times. Students failing to attain a "C" average in any quarter will be placed on probation the following quarter. Unless definite improvement is made while on probation, the student may be asked to withdraw.

**12. Honor Roll.**—To encourage scholarship and integrity, the College publishes an Honor Roll at the end of each quarter. Regular students whose average grade in all courses is "B" shall be eligible for the Honor Roll. Those students whose grade point average is 2.5 each quarter for three consecutive quarters shall be eligible for an Alumni Scholarship.

**13. Disciplinary Suspension.**—All students, except bona fide residents of Greensboro, are required to leave the campus and the city within forty-eight hours after disciplinary suspension. Permission to re-enter the College will not be granted if this regulation is violated.

**14. Withdrawal from College.**—Students who for any reason find it necessary to withdraw from College before the scheduled termination of the school year should file an official

withdrawal with the Bursar. Forms for this purpose may be secured in the office of the Registrar. They should be signed by the designated official and filed before leaving the campus.

All accruing accounts and obligations against such student will terminate on date of filing withdrawal notice. Accruing accounts will continue against those failing to file notice of withdrawal.

**15. Extracurricular Activities.**—Each student shall be encouraged to participate in some one extracurricular activity, upon which he shall be graded with regards to excellence. Special consideration will be allowed students who bring their band or orchestra instruments.

**16. Dormitory Provisions.**—The College provides for each student a bed, bureau, study table and straight chair. Students are required to furnish their own curtains, blankets, bed linen, rugs and towels. Electrical appliances, other than those already supplied, are forbidden. Exception: Radios.

**17. Work Students.**—Industries operated at the college afford opportunity for a limited number of needy but industrious students to help themselves by working for the College. This will be at a given rate of pay and accredited to their accounts at the end of each month. It is not possible to state definitely and in advance how much a student may earn per month.

**18. Radios.**—Students who desire radios in their rooms will be required to pay a radio fee of 50 cents per month to cover the cost of current used.

**19. Entrance Fees.**—Each student must pay in cash all entrance fees and expenses for the first month, when he registers. See page 00 for complete list of fees and expenses.

**20. Monthly and Quarterly Fees.**—Any student whose bills are not paid on or before the day following the date on which such bills are due will be excluded from all College privileges until such bills are paid.

**21. Late Fees.**—Each registrant will be required to pay one dollar for each day that he is late after the last day assigned for registration.

**22. Medical Examination Fees.**—All regularly enrolled students of the College will be required to take a physical examination upon entrance. The College Physician, or some other physician designated by him, will be in charge of all examinations. Day students will be assessed a small fee to cover this and other emergency services.

**23. Military Science Deposit.**—All students taking military training are required to make a deposit of ten dollars for uniforms. This deposit will be refunded when the uniform is returned in good condition. (All freshmen and sophomores unless excused by the College Physician are required to take military training.)

## SCHEDULE OF ENTRANCE EXAMINATIONS

---

(For graduates of non-standard high schools or those who do not present an acceptable certificate of admission)

### Wednesday, September 17:

**History**—(Ancient, Medieval, Modern, American), civics:  
8:00 to 10:00 a.m.

**English**—(Composition, English and American literature),  
industries, French:  
10:00 a.m. to 12:00 m.

**Mathematics**—(Algebra, general mathematics, chemistry,  
biological sciences.  
1:00 to 3:00 p.m.

### VETERANS ADMINISTRATION GUIDANCE CENTER

Of special interest to entering and returning veterans of World War II, is the fact that A. & T. College operates, in conjunction with the United States Veterans Administration, a facility known as the *Veterans Administration Guidance Center*. This Center is excellently equipped to serve both disabled and non-disabled veterans in respect to (1) *Educational and Vocational opportunities* (2) *making the best possible use of skills, aptitudes, abilities and talents* with financial help afforded by the Government in connection with Public Laws 16 and 346, 78th Congress.

Adequate appraisal and psychometric facilities have been established by the College. Veterans are invited to make use of these excellent facilities at no personal expense—if possible, prior to applying for admittance.

**BOARD OF TRUSTEES**  
**THE**  
**AGRICULTURAL AND TECHNICAL COLLEGE**

---

**EXECUTIVE COMMITTEE:**

C. A. HINES, *Chairman*

H. A. SCOTT

PIERCE RUCKER

|                          |                    |
|--------------------------|--------------------|
| EMMETT BELLAMY.....      | Wilmington, N. C.  |
| H. B. CALDWELL.....      | Greensboro, N. C.  |
| SHELLEY B. CAVENESS..... | Greensboro, N. C.  |
| GEORGE T. ASHFORD.....   | Red Springs, N. C. |
| CLYDE A. ERWIN.....      | Raleigh, N. C.     |
| JOHN J. GREEN.....       | Greensboro, N. C.  |
| G. FOSTER HANKINS.....   | Lexington, N. C.   |
| C. A. HINES.....         | Greensboro, N. C.  |
| J. WILSON ALEXANDER..... | Hunterville, N. C. |
| L. P. McLENDON.....      | Greensboro, N. C.  |
| Z. VANCE BUNTING.....    | Bethel, N. C.      |
| GUY B. PHILLIPS.....     | Chapel Hill, N. C. |
| PIERCE RUCKER.....       | Greensboro, N. C.  |
| H. A. SCOTT.....         | Haw River, N. C.   |
| W. R. VAUGHAN.....       | Henderson, N. C.   |
| C. T. WHITTEN.....       | High Point, N. C.  |



# OFFICERS OF ADMINISTRATION AND INSTRUCTION THE AGRICULTURAL AND TECHNICAL COLLEGE

---

## Officers of Administration

|                                                |                                                                    |
|------------------------------------------------|--------------------------------------------------------------------|
| FERDINAND D. BLUFORD, A.B., B.Ped., D.Ped..... | <i>President</i>                                                   |
| WARMOTH T. GIBBS, A.B., Ed.M.....              | <i>Dean, School of<br/>Education and Sciences</i>                  |
| JERALD M. MARTEENA, B.M.E., M.S.....           | <i>Dean, School of<br/>Mechanic Arts</i>                           |
| JOHN C. McLAUGHLIN, B.S.A., M.S.....           | <i>Dean, School of Agriculture</i>                                 |
| E. RAY HODGIN.....                             | <i>Secretary-Treasurer</i>                                         |
| WILLIAM H. GAMBLE, B.S.....                    | <i>Dean of Men</i>                                                 |
| R. E. JONES, B.S., M.S.....                    | <i>Director, Agricultural Extension</i>                            |
| W. L. KENNEDY, B.S., M.S., Ph.D.....           | <i>Director of Graduate Work</i>                                   |
| ALMA I. MORROW, A.B., B.S. in Lib. Sc.....     | <i>Librarian</i>                                                   |
| VIVIAN F. BELL, B.S., M.A.....                 | <i>Dean of Women</i>                                               |
| SIDNEY B. SIMMONS, B.S.A.....                  | <i>Director, Vocational Agriculture</i>                            |
| SAMUEL C. SMITH, B.S., M.S.....                | <i>Assistant State Supt. of Trade<br/>and Industrial Education</i> |
| C. R. A. CUNNINGHAM, B.S., M.S.....            | <i>Registrar</i>                                                   |
| NATHANIEL C. WEBSTER.....                      | <i>Bursar</i>                                                      |

## Associates and Assistants of Administration

|                                      |                                                              |
|--------------------------------------|--------------------------------------------------------------|
| EUPHREY T. BIGELOW, B.S.....         | <i>Secretary to the President</i>                            |
| ROBERT LEE CAMPBELL, D.S.C.....      | <i>Assistant Dean of Men</i>                                 |
| THELMA COLMAN, B.A.....              | <i>Dietitian</i>                                             |
| WILHELMENA HORTENSE CRAINE, B.S..... | <i>Assistant Dean of<br/>Women</i>                           |
| GENEVA P. CRAWFORD, B.S.....         | <i>Secretary to Dean,<br/>School of Mechanic Arts</i>        |
| F. E. DAVIS, M.D.....                | <i>College Physician</i>                                     |
| CATHERINE DERR, B.S.....             | <i>Secretary to College Guidance Center<br/>for Veterans</i> |
| BERNICE M. EDWARDS.....              | <i>Secretary to the Secretary-Treasurer</i>                  |
| CHARITY GIBSON, R.N.....             | <i>College Nurse</i>                                         |
| ALLISON GORDON, B.S.....             | <i>College Postman</i>                                       |
| DOROTHY M. HINNANT, B.S.....         | <i>Assistant Dietitian</i>                                   |
| MARTIN F. HOLT.....                  | <i>Superintendent of Farms</i>                               |
| RUTH N. McDANIEL, B.S.....           | <i>Secretary to Director of Vocational<br/>Agriculture</i>   |



|                                                             |                                    |
|-------------------------------------------------------------|------------------------------------|
| MARY LOUISE PLUMMER, B.S.....                               | Recorder in Registrar's Office     |
| KATIE ELIZABETH SHEPHERD, R.N.....                          | College Nurse                      |
| ETHEL M. WINGO, B.S.....                                    | Assistant Dietitian                |
| CHESTER H. MARSH.....                                       | Superintendent of Maintenance      |
| MARGARET MOORE.....                                         | Secretary to the Bursar            |
| MARY LEE PATTERSON LINDSAY, B.S.....                        | Assistant Dietitian                |
| EDWARD W. WADDELL, B.S.....                                 | 2601 E. Market Street              |
|                                                             | Supervisor College Housing Project |
| B.S., A. and T. College, 1943. Present position since 1946. |                                    |
| VIVIAN B. PICKARD.....                                      | House Director                     |
| ELLEN THERESA REEVES, B.S.....                              | Recorder in Registrar's Office     |
| SAMUEL THOMAS.....                                          | Superintendent of Buildings        |
| ALLIE LEE THOMPSON, B.S.....                                | Secretary to Dean,                 |
|                                                             | School of Education and Sciences   |
| ELIZABETH A. BINGHAM, A.B.....                              | Secretary to Registrar             |
| *THELMA WADELL, B.S., R.N.....                              | College Nurse                      |

### Officers of Army Instruction

|                                         |                    |
|-----------------------------------------|--------------------|
| EDWARD C. JOHNSON, Major, Infantry..... | PMS&T.,            |
|                                         | Commanding Officer |
| ROGER B. KYLES, Captain, Infantry.....  | Asst. PMS&T        |
| OTIS O. ZACHARY, First Lieutenant.....  | Asst. PMS&T        |
| FRED A. MADDOX, WOJG.....               | Adjutant           |
| WALTER ROBINSON, First Sergeant.....    | Sgt. Major         |
| HECTOR W. HILL, Master Sergeant.....    | Instructor         |
| ALCUS M. McCONDUIT, First Sergeant..... | Instructor         |
| HENRY S. HARRIS, First Sergeant.....    | Instructor         |
| GEORGE E. McCLAIN, Sergeant.....        | Supply Sgt.        |

### Officers of Veterans Administration Guidance Center

|                                              |                  |
|----------------------------------------------|------------------|
| B. A. BIANCHI, B.A., M.A.....                | Acting Chief     |
| JOSEPH A. CHRISTMAS, B.S.C.....              | Training Officer |
| SARAH G. TAYLOR, B.S.....                    | Secretary        |
| VIRGIL C. STROUD, B.S.....                   | Appraiser        |
| LOU EARL CLARK, B.S.....                     | Appraiser        |
| HENRY H. JOYNER, B.S.....                    | Psychometrist    |
| WILLIE ARCHIE BLOUNT, B.S.....               | Appraiser        |
| ROGER KENTON WILLIAMS, A.B., M.S., Ph.D..... | Director         |

---

\* On leave of absence, 1946-47.

## Officers of Instruction

**FERDINAND D. BLUFORD**.....107 Lindsay Street  
*President of the College*

A.B., Virginia Union University, 1908; B.Ped., Howard University, 1909; Graduate work Columbia University, 1924; D.Ped., Virginia Union University, 1926. Dean, Agricultural and Mechanical College of Alabama, 1909-1910; Professor of Education, Kentucky State College, 1910-1911; Professor of English, St. Paul Normal and Industrial School, 1911-1912; Professor of English, A. and T. College, 1912-1918; Dean, A. and T. College, 1918-1925; Present position since 1925.

**LITTLETON ALEXANDER ALSTON**.....215 N. Dudley Street  
*English*

B.A., Virginia State College, 1939; M.A., *ibid.*, 1940; M.A., Columbia University, 1945; Professional Diploma in Teaching English—Completed residence for Ed.D. in English, *ibid.*, 1946. Principal, Elementary School, Stony Creek, Va., 1940-1942; Instructor of English, Sussex County Training School, Waverly, Va., 1942-44. Present position since 1946.

**WILLIAM M. BELL**.....College Campus  
*Coach-Director of Physical Education*

B.A., Ohio State University; M.A., Ohio State University. Assistant Coach, Howard University, 1932-1933; Director of Athletics and Head Coach, Chafin College 1934-1935; Director of Physical Education and Head Coach, Florida A. and M. College, 1936-1942; Assistant Director of Physical Training and Coach, Tuskegee Army Air Field, 1944-1945. Present position since 1945.

**ANDREW C. BOWLING**.....807 Logan Street  
*Electrical Engineering*

B.S. in E.E., Bucknell University, 1928; M.S., Ohio State University, 1933; Present position since 1928.

**COLERIDGE ALEXANDER BRAITHWAITE**..1101 E. Market Street  
*Director of Music*

A.B., Harvard College, 1939; M.A., *ibid.*, 1941; Instructor in Music, Fisk University, 1940-1941; Further study, 1942. Present position since 1943.

**VIRGIL A. CLIFT**.....914 East Market Street  
*Guidance*

A.B., Indiana University, 1934; M.A., Indiana State Teachers College, 1939; Ph.D., Ohio State University, 1944; Post-Doctoral Research and Study, Ohio State University during summer 1944. Former positions: Rust College, 1939-40, Education and History. Assistant Professor of Education, Ohio State University during summer 1946. Present position since 1940.

**CHARLES L. COOPER**.....1021 Lindsay Street  
*Industrial Education*

B.S., Hampton Institute, 1926; M.S., Cornell University, 1928; Ph.D., *ibid.*, 1935; Teacher of Industrial Arts and Mechanical Drawing in the City Schools of Greensboro, N. C. Present position since 1930.

**CAROLYN E. CRAWFORD**.....College Campus  
*Home Economics*

B.S., Columbia University, 1932; M.S., *ibid.*, 1933; Further study, Columbia University, 1945-46. Former position, Instructor Prairie View State College, 1929-31. Present position since 1933.

**WARMOTH T. GIBBS**.....420 N. Dudley Street  
*History and Political Science*

A.B., Harvard University; Ed.M., *ibid.*; Completed one year and a half beyond the Master's Degree, *ibid.*; Professor of History 1926-1929; Dean, School of Education and Sciences. Present position since 1929.

JASPER BROWN JEFFRIES.....923 Sevier Street

*Physics*

B.S., West Virginia State College, 1933; Graduate Study, University of Illinois, 1935-36; S.M. University of Chicago, 1940. Instructor in Physics, Public Schools, 1933-35, Winston-Salem, N. C.; Instructor in Mathematics, Public Schools, Gary, Indiana, 1941-42; Instructor in Electronics and Microwaves, Army Signal Corps, University of Chicago, 1942-43; Physicist, Atomic Energy Project, University of Chicago, 1943-46. Present position since 1946.

EDWARD C. JOHNSON, MAJ. INF.....A. and T. College

*Military Science and Tactics*

B.S., Health and Physical Education, Wilberforce University, 1934; Graduated from Command and General Staff School, Fort Leavenworth, Kansas; Quartermaster School, Philadelphia, Pa.; Army Information School, Carlisle, Pa.; Served with 366th Inf. Regt. 5 years; 20 months overseas; 3 Battle Stars; Combat Infantryman's Badge; Army commendation Ribbon. Present position since 1946.

WADARAN L. KENNEDY.....A. and T. College Farm

*Dairy Husbandry*

B.S., University of Illinois, 1927; M.S., *ibid.*, 1929; Ph.D., Pennsylvania State College, 1936; Professor of Animal Husbandry, Virginia State College, 1929-1931; Assistant Professor of Animal Husbandry, Langston University, 1931-1933; Graduate Scholar in Dairy Husbandry, The Pennsylvania State College, 1933-1936. Present position since 1936.

AUGUSTUS LOW.....College Campus

*Social Science*

B.A., Lincoln University, Mo., 1937; M.A., University of Iowa, 1938; Ph.D., University of Iowa, February, 1941. Present position since 1941.

JERALD M. MARTEENA.....1900 Gorrell Street

*Mathematics and Mechanical Engineering*

B.M.E., Ohio State University, 1928; M.S., University of Michigan, 1932; Completed one year and one summer beyond Master's Degree, University of Michigan, 1933; Professor of Mathematics, A. and T. College, 1929-1931. Present position since 1933.

ROBERT E. MARTIN.....115 Obermeyer Street

*Sociology and Economics*

B.A., Howard University, 1936; M.A., *ibid.*, 1938; further study at the University of Chicago, 1942; Instructor in Political Science, Howard University, 1942-43. Present position since 1939.

JOHN C. McLAUGHLIN.....910 Benbow Road

*Agricultural Economics and Rural Sociology*

B.S.A., A. and T. College, 1931; M.S., Cornell University, 1932; Alcorn A. and M. College, 1932-1937. Present position since 1937.

WAVERLYN NATHANIEL RICE, JR.....1504 Gorrell Street

*French and Spanish*

A.B., Morehouse College, 1935; Diplome pour l'enseignement du francais a l'etranger, University of Toulouse, France, 1936; Docteur de l'Universite de Toulouse (Letters), 1937. Present position since 1939.

ROGER KENTON WILLIAMS.....949 E. Washington St.

*Psychology*

A.B., Claflin College, 1936; M.S., Pennsylvania State College, 1940; Ph.D., *ibid.*, 1946. Former positions—Ass't Dean, Claflin College 1936-38; Graduate Assistant, Penna. State College, 1940-41. Present position since 1941.

## Associate Professors

ROY HOWARD BROWN.....310 Beech Street

*English-Debating*

B.S., Bluefield State College, 1937; M.A., Ohio State University, 1946. Instructor, Kanawba County High School, Charleston, W. Va.; McDowell County High School, Kimball, W. Va. Present position since 1946.

THOMAS ARTHUR CLARKE.....A. and T. College

*Social Studies*

B.S., City College of New York, 1936; M.S. in Education, 1945, *ibid.*; M.A., Columbia University, 1945; Recreation Director Bureau of Recreation Department of Parks, New York City, 1931-43; Marine Captain in International Transportation, Erie Railroad, 1943-45. Present position since 1945.

C. R. A. CUNNINGHAM.....1110 E. Market Street

*Biology*

B.S., University of Illinois, 1929; M.S., *ibid.*, 1930; Instructor, Tennessee State College, 1930-1931; Georgia Normal and Agricultural College, 1931-1934. Present position since 1934.

CLARENCE E. DEAN.....Sedalia, N. C.

*Agricultural Education*

B.S., Hampton Institute, 1924; M.S., Iowa State College, 1930; Berry O'Kelly Training School, 1926-1930. Present position since 1930.

MARGARET W. BOLDEN FERGUSON.....College Campus

*Home Economics*

A.B., University of Illinois; M.A., *ibid.*, Summer work at the University of Chicago and Cornell. Present position since 1936.

ROGER B. KYLES, CAPT.....A. & T. College Campus

*Military Science*

A.B., Howard University; Further Study toward M.S., Howard University. Clerk, Government Printing Office, Washington, D. C., Instructor of Mathematics, Jr. High School, Washington, D. C., Captain, U. S. Army. Present position since 1946.

ALMA I. MORROW.....1001 Lindsay Street

*Librarian*

B.S. in Library Science, Hampton Institute; A.B., Howard University; Graduate Study, Columbia University.

JOHN B. MURPHY.....501 Bennett Street

*Agronomy*

B.S., Prairie View College; M.S., Kansas State College. Instructor in Rural War Training, Prairie View College and at Nacogdoches, Texas; Teacher, Vocational Agriculture, Yoakum, Texas; County Agricultural Agent, Bellville, Austin County, Texas. Present position since 1946.

ARTHUR SYLVESTER TOTTEN.....A. and T. College Farm

*Poultry*

B.S., West Virginia State College; M.S., Michigan State College. Instructor poultry two years, Princess Ann College; Instructor, Southern University one year. Present position since 1946.

H. CLINTON TAYLOR.....807 Logan Street

*Fine Arts*

B.F.A., Syracuse University, 1927; M.A., Columbia University; Further Graduate study, Columbia University, 1935. Present position since 1927.

LLEWELLYN ADDISON WISE.....422 N. Dudley Street

*Business*

B.S.C., New York University, 1928; M.A., Atlanta University, 1934. Membership in: American Association of Collegiate Registrars; American Academy of Political and Social Science; Association of Deans and Registrars of Negro Schools; N. C. Negro Teachers Association; Southern Business Education Association; National Business Teachers Association and National Negro Business League. Present position since 1928.

**Assistant Professors**

VIVIAN F. BELL.....Annie Holland Hall

*Dean of Women*

B.S., Knoxville College; University of Iowa, M.A. Former position: Instructor, Parker High School, Birmingham, Ala., Dean of Women, A. and T. College, 1939-42.

PEARL G. BRADLEY.....1425 E. Market Street

*English and Dramatics*

B.S., Agricultural and Technical College, 1939; M.A., University of Michigan, 1944; Instructor of English, J. B. Dudley High School. Present position since 1945.

H. W. CARTER.....College Campus

*Architecture*

B.S., Architectural Engineering, Ohio State University; B.S., Fine Arts Education, *ibid.*; M.S., Industrial Arts, *ibid.* Instructor of Industrial Arts, Lincoln High School, Paducah, Kentucky, 1928; Instructor Fine Arts, Bluefield State Teachers College, 1929; Instructor Architectural Drawing, Prairie View College, Prairie View, Texas, 1936-1941. Present position since 1947.

CHARLES C. DEAN.....144 Mitchell Street

*Reference Librarian*

B.S., A. and T. College; B.L.S., University of Wisconsin, 1940-41; Further study, New York University, 1946. Former position, Assistant to Registrar, A. and T. College; 1942-45. Present position since 1946.

HAROLD DELANEY.....427 N. Dudley Street

*Chemistry*

B.S., Howard University; M.S., *ibid.*; Junior Chemist, Atomic Bomb Project, University of Chicago. Present position since 1945.

GWENDOLYN TUBBS DICKSON.....College Campus

*Business Administration*

A.B., Samuel Huston College; M.C.S., Boston University. Secretary to President, Samuel Huston College, 1939-42; Bursar-Business Manager, Samuel Huston College, 1942-45; Instructor of Commercial Education, St. Philip's Jr. College, Summer, 1946. Present position since 1946.

RUDOLPH GRANDY.....A. & T. College

*Biological Sciences*

B.S., A. and T. College; Cornell University, further study; Instructor in Horticulture, Southern University, Scotlandville, La. Present position since 1942.

CARRYE V. HILL.....141 Beech Street

*English*

B.S., A. and T. College; M.A., University of Pennsylvania; Further study at New York University, 1945. Present position since 1939.

LACIE M. JOHNSON.....509 Bennett Street

*Reference Librarian*

B.A., University of Iowa; B.L.S., University of Illinois, 1945-46. Present position since 1946.



W. T. JOHNSON.....506 Logan Street

*Rural Engineering*

B.S., A. and T. College, 1932; M.S., A. and T. College, 1944; Further study, Purdue University; Teacher of Vocational Agriculture and Manual Training, Spring Hope High School; Assistant State Supervisor, Food Production War Training, 1942-45. Present position since 1937.

FRED A. MADDOX, WARRANT OFFICER.....A. and T. College

*Military Science*

Present position since 1946.

FLOYD A. MAYFIELD.....1208 Gorrell Street

*Architecture*

B.S. in Architecture, Howard University; Two years of graduate study at the University of Michigan, 1935-37. Present position since 1930.

CLEO MILAN McCOY.....A. and T. College

*Religious Education*

B.A., Paine College, 1939; B.D., School of Religion, Howard University, 1942. Interne Chaplain, National Training School for Boys, Washington, D. C., 1940; Qualifications Examiner, United States Civil Service Commission, Washington, D. C., 1943-45; Personal Technician, Treasurer Department, Bureau of the Public Debt, New York Regional Office, New York City, 1946. Present position since 1946.

JAMES PENDERGRAST.....638 Gaston Street

*Chemistry*

B.S., A. and T. College, 1939; M.S., Howard University, 1942; A. and T. College 1941-42; Southern University, 1942-45. Present position since 1945.

GEO. A. RODDY.....120 Laurel Street

*Automotive Engineering*

B.S. and M.E., University of Iowa, 1931; Instructor at Arkansas State College, 1932-1934. Present position since 1935.

WILLIAM SPIGENER.....A. & T. College

*Biology*

B.S., Lincoln University; M.S., Catholic University of America. Statistician, War Department. Present position since 1946.

EUGENE STANLEY.....A. and T. College Campus

*Education*

B.S., Wilberforce University, 1935-39; M.A., Ohio State University, 1942-46; Attended Institute on International Relations held at Antioch College, Yellow Springs, Ohio. Assistant Director of Lincoln Community Center, Troy, Ohio, 1939-41; Bureau of Unemployment Compensation (Central Office), Columbus, Ohio, 1941-46. Present position since 1946.

RICHARD ARTHUR THORNHILL.....A. and T. College Campus

*Zoology*

B.S., Virginia Union University; A.M., Montclair, N. J., State Teachers College. Principal, Oak Hill High School, Virginia; Instructor Trainer, U. S. Army. Present position since 1946.

QUEENABELLE ANITA WALTON.....1143 Gorrell Street

*Physical Education*

A.B., Colorado State, Greeley, Colorado; Graduate Study, Lincoln University, Mo.; M.A., Columbia University. Supervisor Playground, Denver, Colorado; Director Women's Department, Physical Education, North Carolina College, Durham, N. C. Present position since 1946.

**BERYL WARNER WILLIAMS**.....949 East Washington Street  
*Mathematics*

B.A., University of Maine; M.A., *ibid.* Itinerant Mathematics Instructor, American Missionary Association; General Education Board of the Methodist Church. Present position since 1946.

**JOHN L. WITHERS**.....519 Bennett Street  
*Economics*

B.S., A. and T. College; M.A., University of Wisconsin. Recorder, A. and T. College. Present position since 1947.

**RALPH L. WOODEN**.....430 N. Dudley Street  
*Industrial Education*

B.S., A. and T. College; M.A., Ohio State University; Graduate work toward Ph.D., *ibid.* Former positions, Instructor, North Street High School, Hagerstown, Md., 1938-39; Dudley High School, Greensboro, N. C., 1940-41; U. S. War Department, U. S. Air Forces, Ground School instructor, Chanute Field, Illinois, Seymour Johnson Field, N. C.; Rome Army Airfield, New York. Present position since 1947.

**OTIS O. ZACHARY, 1ST LT**.....A. and T. College  
*Military Science*

A. and T. College; Lincoln University; University of Arizona. Former position, Company of Infantry Training Command. Present position since 1946.

## Instructors

**LORETTA D. BIANCHI**.....507 Gorell Street  
*History*

B.A., Union University, 1931; Further graduate study, Virginia State College. Instructor of History, Atkins High School, Winston-Salem, N. C., 1933-34; Social Case work, Winston-Salem, N. C., 1934-36; Substitute teacher, City Schools, Winston, N. C., 1936-40; Library of Congress, Legislation Reference Section, 1940-43; Statistical Clerk, War Production Board, Washington D. C., 1943-46. Present position since 1946.

**JEAN MARIE BRIGHT**.....1116 Perkins Street  
*English*

B.S., A. and T. College, 1939; Further study Columbia University, Summer, 1940; Atlanta University, Summer, 1942; Howard University, 1943. Instructor of English, Trenton High School, Trenton, N. C., 1940; Hillsboro High School, Hillsboro, N. C., 1942. Present position since 1947.

**C. L. CANNON**.....1402 McCornell Street  
*Laundry Management*

B.S., Alcorn A. & M. College. Present position since 1946.

**WALTER F. CARLSON, JR**.....144 Beech Street  
*Band Director*

B.S., A. and T. College. U. S. N. R. Band, Chapel Hill, N. C.; Pearl Harbor, Hawaii. F.H., Cornetist. Present position since 1946.

**ETHBERT S. CARR**.....1527 McConnell Road  
*Agronomy*

Hampton Institute; B.S., in Agriculture, Ohio State. Instructor at Prairie View State College. Present position since 1945.

**ALLIE L. CLIFT**.....914 East Market Street  
*English*

B.S., Indiana State Teachers College, 1941; Graduate Study at Ohio State University. Former positions: Instructor of Elementary Education, Rust College, 1939-1940; Primary teacher, Lyles Consolidated School, Lyles, Indiana, 1943-44. Present position since 1944.



**CHARLES C. DAVIS**.....A. and T. College  
*Mathematics*

B.S.-E.E., Howard University.

**GERALDINE AVERY DAWSON**.....409 N. Dudley Street  
*Reserve Librarian*

A.B., Bennett College. Former positions, Instructor, Fayetteville, N. C., Wilkesboro, N. C., and substitute work, Union St. School, Hampton, Va. Present position since 1946.

**WILLIAM H. DAWSON, JR.**.....409 N. Dudley Street  
*Auto Mechanics*

B.S., A. and T. College; Instructor, A. and T. College 1939-41; State Department of Public Instruction, Fayetteville State College, 1941-42; Federal Government, Camp Lee, Va.; U. S. Army 1942-46. Present position since 1946.

**EMMA HARRIS DERRICKSON**.....222 N. Regan Street  
*Chemistry*

B.S., St. Augustine's College; Further study, Hampton Institute. Present position since 1947.

**CLYDE DEHUGULEY**.....360 West Bragg Street  
*Shoe Repairing, Leather Works*

Graduate, Tuskegee Institute, 1922; Instructor in shoe repairing, Kentucky State College, 1922-24. Present position since 1924.

**GASTON L. DYSON**.....607 Law Street  
*Fine Arts*

B.S., A. and T. College, 1937; Further study, Boston University, and Columbia University. Present position since 1946.

**WILLIAM H. FOUST**.....119 Landreth Street  
*Bricklaying, Cement Construction*

Attended Trade School, A. and T. College, 1931; General Contractor 1936-41; Foreman of Walk's Real Estate Company, Washington, D. C., 1941-42; Worked on Defense Projects. Present position since 1944.

**WILLIAM H. GAMBLE**.....College Campus  
*Education*

B.S., A. and T. College, 1938; Further study, University of Pittsburgh and Columbia University. Assistant to the Registrar, A. and T. College, 1938-40; Dean of Men and Instructor of Education. Present position since 1940.

**E. R. GARRETT**.....901 Lindsay Street  
*English*

A.B., Tougaloo College, 1905; Summer Work, University of Wisconsin, 1921; Graduate work at University of Iowa, 1928. Instructor of Mathematics, Campbell College, Jackson, Miss., 1911-1913; Trade teacher and Instructor in English, 1913-18; Assistant Professor of English, 1918-1920; Teacher Trainer, Trades and Industrial Education, 1920-1922; Alcorn, A. & M. College; Teacher Trainer, Trades and Industrial Education, 1922-1930, A. and T. College; Superintendent Memorial Industrial School, 1932-1946. Present position since 1947.

**HOWARD C. GENTRY**.....North Campus  
*Physical Education*

B.S., Florida A. & M. College; Graduate work, Ohio State University. Former position, Army Officer. Present position since 1946.

**CHARLES P. GEORGE, JR.**.....803 Sevier Street  
*Chemistry*

B.S., A. and T. College. Research Chemist, U. S. Bureau of Mines, Raleigh, N. C.; Postal Clerk, Washington, D. C. Present position since 1946.

- GERARD E. GRAY**.....College Campus  
*Engineering Drawing and Mathematics*  
 B.S., Architectural Engineering, A. and T. College, 1942. Present position since 1946.
- HENRY S. HARRIS, 1ST SGT., ROTC**.....A. and T. College  
*Military Science*  
 Tuskegee Institute; Continuous service in the United States Army, 17 years; Served with U. S. Tenth Cavalry, 12 years. Present position since 1946.
- HECTOR W. HILL, M./SGT**.....A. and T. College  
*Military Science*  
 Columbia University. Former positions; Chief Warrant Officer, U. S. Army Served overseas as Commanding Officer and Bandleader with 92nd Infantry Division Band. Present position since 1946.
- MAJOR B. HOLLOWAY**.....1145 Gorrell Street  
*Auto-Mechanics*  
 Certificate A. and T. College, 1940; Instructor Mechanics School United States Army 1941-45. Present position since 1945.
- AURELIA ELIZABETH JONES**.....116 Laurel Street  
*Home Economics*  
 B.S., Hampton Institute, 1945; 1 year graduate study, Cornell University. Home Demonstration Agent, Wake County, Raleigh, N. C., 1945-46. Present position since 1946.
- CLINTON E. JONES**.....215 North Dudley Street  
*Physics-Mathematics*  
 B.S., A. and T. College. A. and T. College, 1943; Hampton Institute, Department of Physics, 1943-44. Present position since 1946.
- PAUL E. LEACRAFT**.....106 S. Luther Street  
*Mathematics*  
 B.S., A. and T. College, 1941; High School Instructor, 1941-42; 1st Lt. CWS. Present position since 1946.
- J. KENNETH LEE**.....A. & T. College  
*Radio Repairing*  
 B.S., A. and T. College; Further study, Hampton Institute; University of Hawaii and Navy Pacific University. The U. S. Navy "Sea Bees." Present position since 1946.
- WILLIAM L. LEWIS**.....949 East Washington St.  
*Industria Arts*  
 B.S., Industrial Arts, Tuskegee Institute; M.A., University of Chicago, further study University of Chicago. Supervisor of patternmaking and Joinery, Alabama A. and M. College, N.Y.A., 1942; precision machinist, Western Electric Company, Chicago, Illinois, 1943-44; visual aids teacher, University of Chicago Laboratory School, 1946-47. Present position since 1947.
- HARDY LISTON, JR**.....1308 E. Fourth St., Winston-Selem, N. C.  
*Mechanical Engineering*  
 Knoxville College, 1936-39; B.S., in M.E., 1943, Howard University. Assistant Ordnance Engineer, Navy Department, Washington, D. C., 1943-46. Present position since 1946.
- SUZANNE C. MARTIN**.....115 N. Obermeyer Street  
*English*  
 A.B., Howard University, 1937; two years graduate work toward M.A. degree. Teacher at A. and T. Nursery School; Substitute in Greensboro City Schools. Present position since 1945.

JOE RENDY MASSEY.....Hayes-Taylor Y. M. C. A.  
*Chemistry*

B.S., A. and T. College. Le Grange High School, Le Grange, N. C.

ROSA MAE MAYBREY.....212 Obermeyer Street  
*Secretarial Science*

B.S., A. and T. College, Secretary to the Registrar, A. and T. College; Secretary, Army Specialized Training Program, A. and T. College. Present position since 1944.

CARRIE L. McLAUGHLIN.....1143 Gorrell Street  
*Physical Education*

B.S., Howard University. Present position since 1946.

MARION HYNSON MIMS.....A. and T. College  
*English-Journalism*

B.S., Lincoln University, 1945; Further study, State University of Iowa, 1945-46. Present position since 1946.

WALLACE L. MITCHELL.....422 N. Dudley Street  
*Carpentry*

B.S., Shaw University, 1931; B.S., A. and T. College, 1935. Present position since 1935.

WINSTON M. MOORE, JR.....1145 Gorrell Street  
*Radio*

B.S., in Electrical Engineering, A. and T. College; National Radio Institute. Assistant Chief Engineer, Simplex Radio Corporation, Radio Engineer, Philco Corporation of Ohio. Present position since 1946.

EDWINA T. MURPHY.....501 Bennett Street  
*English-Spanish*

A.B., Fisk University; Further study, Columbia University. Anderson High School, Austin, Texas; Tillotson College, Austin Texas; Summer High School, Kansas City, Kansas. Present position since 1946.

ALCUS M. McCONDUIT, 1ST SGT.....A. and T. College  
*Military Science*

B.A., Xavier University. Former position, Social Worker and Instructor. Present position since 1946.

NETTIE M. NASH.....420 Boyd Street  
*Director of Nursery School*

B.S., Bennett College; 2 summers, Columbia University. Assistant Teacher in Bennett College, Nursery School; Head Teacher, Charles H. Moore Nursery School; Assistant Teacher, A. & T. College Nursery School. Present position since 1946.

LILLIE FORD NEWKIRK.....A. and T. College  
*Reserve Librarian*

B.S., A. and T. College. Present position since 1947.

ROBERT S. POOLE.....College Campus  
*Tailoring and Designing*

Hampton Institute, 1911; Mitchell School of Designing, 1916; Instructor, Edward Waters Institute, 1917-1920; Business, 1920-1926. Present position since 1926.

DAVID G. SPELLER.....213 Marshall Street

*Tailoring*

Certificate, A. and T. College, 1936; Business, 1938-1939; Religious Director, Hayes-Taylor Memorial Y. M. C. A., Greensboro, N. C., 1939-1941; Acting Pastor New Zion Baptist Church, Greensboro, N. C., 1941; Assistant Pastor, Ebenezer Baptist Church, Portsmouth, Va., Summer, 1942; Acting Pastor, First Congregational Church, Greensboro, N. C., 1943; Assistant Instructor in tailoring, A. and T. College since 1940. Present position since 1941.

VEDA J. STROUD.....149 Beech Street

*Business Administration*

B.S., A. and T. College; Secretary to the Dean of the School of Education and Sciences, A. and T. College, 1939-1940. Present position since 1942.

JAMES WESLEY TURNER.....815 East Bragg Street

*English*

B.S., A. and T. College, 1938; Further study, A. & T. College, 1946. English Instructor, Westmoreland Elementary School, Danville, Va., 1939-40. Clerk Typist, U. S. Army, 1942-45; Manager of Army Post Office, ORD, Greensboro, N. C., 1946. Present position since 1947.

H. E. WEBB, JR.....College Campus

*Electrical Engineering*

B.S., Electrical Engineering, A. and T. College. Graduate study New York University. Present position since 1947.

ARVISTA M. WILEY.....Route 1, Box 28, Yanceyville, N. C.

*Assistant Teacher, Nursery School*

B.S., A. and T. College. Present position since 1946.

ANDREW W. WILLIAMS.....A. and T. College Campus

*Machine Shop Practice*

Certificate, Machinist Trade School, Chicago, 1943; A. and T. College 1946. Instructor in Machine Shop Practice, U. S. Navy, 1943-45; Industry, 1943. Present position since 1946.

LAVERNE MINTERS WILLIAMS.....A. and T. College

*Sociology*

A.B., University of Indiana, 1943; Further study, Indiana University, School of Social Work. U. S. Civil Service Commission, Wright Field, Dayton, Ohio, 1943-45. Present position since 1946.

ELDRIDGE FRANKLIN WILLIAMS.....A. and T. College

*Physical Education*

B.S., Xavier College; Western Industrial College, Certificate Commercial Course; Summer School, University of Michigan. Present position since 1946.

RAYMOND P. WILLIAMS.....1204 Kivett Drive, High Point, N. C.

*Welding*

1940-41, A. and T. College Vocational School of Carpentry; 1943, Washington State Vocational School of Welding, Certified by "American Bureau of Shipping Surveyor," 1943. Head of Industrial Arts, 229 CCC Fort Bragg, N. C., 1935-36; Instructor of Industrial Arts, Palmer Memorial Institute, 1937-38; Recreational Leader in Greensboro, High Point, Burlington and Sedalia, N. C., 1938-40; National Defense Work during War, Philadelphia Navy Yard, Philadelphia, Pa. Present position since 1945.

**Agricultural Extension Service Personnel**

|                                     |                                                                              |
|-------------------------------------|------------------------------------------------------------------------------|
| R. E. JONES, B.S., M.S.....         | <i>State Director Extension Agents</i>                                       |
| J. W. JEFFRIES, B.S.....            | <i>Assistant Director Extension Agents</i><br><i>Western District</i>        |
| DAZELLE F. LOWE, B.S.....           | <i>District Home Agent, Western District</i>                                 |
| OTIS BUFFALO, B.S.A.....            | <i>District Farm Agent,</i><br><i>Northeastern District</i>                  |
| WILLETTE T. MERRITT, B.S.....       | <i>District Home Agent,</i><br><i>Northeastern District</i>                  |
| JOHN A. SPAULDING, B.S.A.....       | <i>District Farm Agent,</i><br><i>Southeastern District</i>                  |
| WILHELMENA R. LAWS, B.S.....        | <i>Emergency Negro Extension</i><br><i>Supervisor, Southeastern District</i> |
| H. BLANCHE STEPHENS.....            | <i>Secretary to Extension Supervisors</i>                                    |
| WILLA B. EATON, B.S., M.S.....      | <i>Subject Matter Specialist</i><br><i>Foods and Nutrition</i>               |
| BERTRAND B. HALL, B.S.A.,.....      | <i>County Agent, Guilford County</i>                                         |
| ROSA T. WINCHESTER, B.S.....        | <i>Home Agent, Guilford County</i>                                           |
| JONES E. JEFFRIES, B.S.....         | <i>Marketing Specialist</i>                                                  |
| WILLIAM C. COOPER, B.S.....         | <i>Negro 4-H Specialist</i>                                                  |
| ANNE RUTH McALISTER, B.S.....       | <i>Extension Secretary</i>                                                   |
| HAZEL R. MITCHELL, CERTIFICATE..... | <i>Secretary</i>                                                             |
| ATHELSTINE A. WATKINS, B.S.....     | <i>Extension Secretary to</i><br><i>Specialists</i>                          |
| ROBERT LOUIS WYNN, B.S., M.S.....   | <i>Negro Dairy Extension</i><br><i>Specialist</i>                            |
| GENEVIEVE M. KYER, B.S., M.S.....   | <i>Subject Matter Specialist</i><br><i>Clothing and Home Management</i>      |



## HISTORY OF THE COLLEGE

This College was established by an act of the General Assembly of North Carolina, ratified March 9, 1891. The object of the institution is declared by the act to be for instruction in practical agriculture, the mechanic arts and such branches of learning as related thereto, not excluding academic and classical instruction.

The citizens of Greensboro donated fourteen acres of land and \$11,000 to be used in the construction of buildings. In 1893 this was supplemented by an appropriation of \$10,000 by the General Assembly. Dudley Hall was completed in 1893 and the school opened in the fall of that year at Greensboro. Previously, it had operated in connection with Shaw University in Raleigh, N. C.

The management and control of the College and the care and preservation of all its property are vested in a Board of Trustees, consisting of sixteen members, who are elected by the General Assembly, or appointed by the Governor, for a term of six years.

The Trustees, by the act of the Legislature, have power to prescribe rules for the operation of the College; to elect the president, instructors, and as many other officers and assistants as they shall deem necessary; and have general and entire supervision of the establishment and maintenance of the College.

The financial support of the College for the payment of salaries and purchase of apparatus and equipment is derived from the United States, under an Act of Congress, known as the Morrill Act, passed August 20, 1890. This act makes an annual appropriation for each State and Territory for the endowment and support of colleges for the benefit of agriculture and mechanic arts, to be applied "only to instruction in agriculture, the mechanics arts, the English language and the various branches of mathematics, physical, natural, and economic sciences with special reference to their application in the industries of life and the facilities of their instruction."

The College also receives an appropriation from the State for general maintenance, which cannot be provided for under the laws governing the use of Federal appropriations.

The work of the College is carried on through six major divisions or schools. These are the School of Agriculture, the School of Education and Science, the School of Mechanic Arts, the Trade School, the Summer School and the Graduate School.

The offerings and requirements of these schools are explained in the pages that follow. Special bulletins on the Trade School, the Graduate School and the Summer School are published by the College. A copy of either may be had on request.

---

## THE COLLEGE BUILDINGS

### Dudley Memorial Building

On January 27, 1930, the original Dudley Hall was destroyed by fire. The erection of the New Dudley Hall was undertaken immediately thereafter and on February 15, 1931, it was occupied. This is a fine fireproof structure of three stories, larger than the old building and better suited to meet the needs of a modern college. It contains classrooms, assembly room, library, offices for the President, Dean of the School of Education and Sciences, Treasurer, Registrar, Bursar, and other administrative officers.

### Library

The Library occupies the entire second floor of the New Dudley Administration Building. It contains 32,000 volumes and 4,500 pamphlets, and receives 201 current periodicals, representing various departments of the College and 23 newspapers. Books have been carefully selected with a view to facilitating instruction and research.

All students registered in the College are entitled to full reference use of the Library. Subject to certain necessary library rules and regulations, students may withdraw books for home use. The Bursar's receipt, bearing the signature of the student, must be presented as identification.

*Library Hours:* The Library is open Monday through Friday from 8:00 a.m. to 5:00 p.m. and 6:30 to 9:00 p.m. except Saturday, when the hours are from 9:00 to 12:00 noon and 1:30 to 4:30 p.m.



### **North Dormitory**

The North Dormitory is a three-story building which contains rooms for about 70 students.

### **Morrison Hall**

Morrison Hall is a fireproof, three-story building with basement. It contains rooms for 130 students.

### **Annie W. Holland Hall**

Annie W. Holland Hall is a dormitory for women. It was completed in 1938 and is named in honor for Mrs. Annie W. Holland, who for a long period was State Supervisor of Colored Elementary schools in North Carolina. The building is fireproof and is located in one of the most beautiful sections of the campus. It is constructed to house 155 students.

### **The College Buildings Renamed**

By a special vote of the Board of Trustees in its annual meeting for 1933, the following changes in the names of buildings were made: the Agricultural Building became Noble Hall in recognition of the distinguished services of the late Chairman of the Board of Trustees, Dr. M. C. S. Noble, and the Mechanics Building became Crosby Hall in honor of the first president of the College, Dr. John O. Crosby.

### **Vanstory Hall**

Vanstory Hall, formerly known as the South Dormitory, is a three-story, brick building, which contains rooms for 92 students. The basement is used for storerooms.

### **Noble Hall**

Noble Hall is a fireproof, three-story structure, with basement. It contains laboratories for botany, dairy products, zoology, geology, chemistry and classrooms and offices for the Dean, School of Agriculture, and the heads of divisions.

### **Crosby Hall**

Crosby Hall, one of the few remaining historic buildings on the campus, is a three-story structure. It houses on the ground floor the Department of Masonry, Rural Engineering and the

College Post Office. The first floor contains the Department of Business, Dressmaking, and the R.O.T.C. Storeroom. The third floor houses the Departments of Fine Arts, Architecture and Mechanical Drawing.

### **Alexander Graham Hall**

The Alexander Graham Hall is a three-story fireproof structure located near U. S. Highway No. 70. The building was constructed in 1939 with funds appropriated by the State and the Federal Emergency Administration of Public Works and contains the following laboratories and shops: Physics, Photography and Visual Education, and Engineering, Laboratories, Industrial Arts, Auto-Mechanics, Shoe Repairing, Machine Shop Welding, and Carpentry Shops. The office of the Dean of the School of Mechanic Arts is also located in this building.

### **Richard B. Harrison Auditorium**

The Richard B. Harrison Auditorium, completed in 1940, takes its name in honor of the noted actor and teacher who gained world renown as "De Lawd" in the great stage production of 1930, *The Green Pastures*. Previously Richard B. Harrison had been well and favorably known to the students and constituents of the A. and T. College as teacher of dramatics and public speaking, a position he had held at the College for a number of years and relinquished to accept the part in the play mentioned above.

This auditorium, one of the largest and best equipped of its kind in the state, contains in addition, special rooms for dramatics, band and music classes, and offices for the music and dramatic departments. It is the center for public programs, religious services and extracurricular activities.

### **The College Gymnasium**

The College Gymnasium is a one-story fireproof structure located on East Market Street, which is United States Highway No. 70, the main thoroughfare connecting eastern and western Carolina. This building is used for physical education classes and extracurricular activities for both men and women.

The large seating space and the stage make it possible for it to be used also as an auditorium for public programs and other civic activities.

### **Murphy Hall**

Murphy Hall is a one-story fireproof building, which contains the cafeteria, the kitchen, and the refrigeration plant. The cafeteria has seating capacity for 800 students. It is one of the most beautiful buildings of its kind to be found in the State.

### **Florence Garrett Practice House**

The Florence Garrett House is the new home economics practice house. The building was named in honor of Mrs. Florence Garrett, who was among the first women students to attend the College, and who bequeathed her small estate to the College as a beginning of an endowment. It is a two-story brick structure, conveniently located and adequately constructed to meet the needs of the home economics students.

### **Power Plant**

A new central heating and power plant has recently been installed containing boiler capacity of 330 horsepower and affords the students of mechanical engineering the opportunity of practical experience in boiler-room operation and management. Attached to the power plant is a modern steam laundry with most modern equipment.

NOTE: Other equipment and buildings are described in special sections dealing with the Schools of Agriculture.

### **North Campus**

In the fall of 1946, the College was successful in acquiring by purchase the military hospital area of the local army overseas Replacement Depot. This plot comprises about fifty-two acres of improved land and is one block north of the main campus.

This new area has been designated the North Campus. Some of the buildings are being used for dormitories for men, some for class rooms and others for shops for trade and vo-

cational classes. Physical Education classes for men are held in the recreation hall and dining halls are run for the use of the students lodging on north campus.

The army administration headquarters have been converted into offices for the veterans administration Guidance center and for the college guidance center.

### **Temporary Housing**

The College was allotted in 1946 seventy-two temporary housing units for the accommodation of married veterans. These have been erected and are now occupied by married veterans enrolled at the college.

A dormitory containing space for one hundred and twenty-eight single veterans has also been allotted by the federal housing authority. These will be available for the fall quarter, 1947.

# GENERAL INFORMATION

---

## ADMISSION TO COLLEGE

High school graduates may qualify for admission by any one of the following methods:

1. Entrance examination conducted by the College.
2. Examination conducted by the College Entrance Board.
3. Certificate from an accredited high school.

Students who desire admission to the Freshman Class by certificate may show that they have completed fifteen (15) units of high school work as follows:

Six units required from Group I.

As many as ten units may be elected from Group II.

As many as six units may be elected from Group III.

| Group I                 | Required Units | Group II             | Electives |
|-------------------------|----------------|----------------------|-----------|
| 1. English .....        | 3              | 1. Science (Natural) |           |
| 2. Mathematics .....    | 2              | 2. Social Science    |           |
| 3. Social Science ..... | 1              | 3. English           |           |
|                         |                | 4. Mathematics       |           |

| Group III              | Electives |
|------------------------|-----------|
| 1. Agriculture         |           |
| 2. Art                 |           |
| 3. Commercial Subjects |           |
| 4. Home Economics      |           |
| 5. Industrial Arts     |           |
| 6. Music               |           |
| 7. Mechanics           |           |
| 8. Foreign Language    |           |

NOTE: Not more than three units from any subject in Group II and two units from any subject in Group III will be accepted in the fifteen (15) units of work.

A unit of work in the above requirements is approximately a fourth of a year's work in a secondary school. It is assumed that study is pursued for four or five periods a week; that the recitation periods are from forty to sixty minutes in length; and that the length of the school year is nine months.

**CLASSIFICATION OF NEW STUDENTS****1. Freshmen.**

- a. Graduates from high schools will receive entrance rating according to the standing of their respective schools.
- b. If the student is not a graduate of an accredited high school, he must comply with the requirements by examination. Entrance examinations will be held at the College on September 17, 1947.
- c. Every student, irrespective of the method by which he seeks admission, must present to the College through the principal of his former school, a transcript covering his entire record of subjects and grades and a statement including the principal's estimate of his character.

**NOTE:** All entering Freshmen will be required to take placement tests in English and mathematics. Students registering in the School of Education and Sciences will take placement tests in French if they have two units of French on their high school transcripts. All who fail in the English examination will be assigned to a remedial course in English (English 210). All who fail in the mathematics examination will be assigned to a remedial course in mathematics (Mathematics 309). All who fail in the French tests will take French 211.

**2. Students of Advanced Standing.**

Applications for advanced standing will be passed upon by the admission officer, after transcripts have been received.

All persons who desire to enter the College should make application to the Registrar before the opening of the quarter in which they wish to enroll. Those who desire to be admitted by certificate should apply as soon as possible after graduation from high school. For all applicants the blank form found in the back of the catalogue is sufficient. Early attention to this matter will save the student much delay at the opening of the session.

**3. Special Students.**

In exceptional cases applicants of mature years, of special training along particular lines, or of long experience in specific fields of knowledge, may be admitted to the College to study certain subjects, as special students, even though they cannot satisfy entrance requirements. Such students must do a passing grade of work in each course for which they may be permitted to register, or they will be asked to withdraw from the course.



## CLASSIFICATION OF ADVANCED STUDENTS

### *Sophomore—*

To be classified as a sophomore a student must have completed fifty hours of work open to freshmen with at least fifty grade points. As a part or in addition to this, the freshman courses in education, vocations, military science or physical education, and remedial English and mathematics must be completed.

### *Junior—*

Before being classified as a junior a student must have completed one hundred quarter hours of work required of sophomores with a similar number of grade points. No student will receive junior classification until all required freshman and sophomore courses have been completed.

### *Senior—*

Before gaining senior classification a student must have completed at least one hundred and fifty hours of required and major work with a minimum of one hundred and fifty grade points.

## STUDENT LOAD

The unit of credit is the quarter hour, which stands for one recitation or two laboratory periods per week for a period of twelve weeks. Each recitation period carries with it approximately two hours of preparation.

Students will generally be required to register for 14 hours of regular work of college credit per quarter, as a minimum.

(a) Students whose general average is "C" may register for not more than minimum of his curriculum.

(b) Students whose average is 2.5 grade points, with no grade below "B" may be permitted to register for not more than 21 hours of work for the quarter following such a record.

## MARKING SYSTEM

|                                    | <i>Grade Points</i> |
|------------------------------------|---------------------|
| 93-100—A (Excellent) .....         | 3                   |
| 82- 92—B (Good) .....              | 2                   |
| 71- 81—C (Fair) .....              | 1                   |
| 60- 70—D (Poor, but passing) ..... | 0                   |
| Below 60—F (Failure) .....         | —1                  |
| I (Incomplete)                     |                     |
| W.P. (Withdrew, passing)           |                     |
| W.F. (Withdrew, failing)           |                     |



### GRADE POINTS

The maximum points which a candidate for graduation with minimum hour requirements can make under this system will be 600, the minimum 200; that is, in order to graduate, a student must make an average of "C."

### REMOVAL OF FAILURES

At his first opportunity a student must repeat in class a required course in which he has failed, unless the Dean of his School authorizes a suitable substitute course.

### INCOMPLETES

A student may be reported incomplete in a course if some small portion of his work remains unfinished at the end of the quarter, provided his standing in the course has been grade "C" or higher. To secure credit, this work must be completed within one month after the beginning of the succeeding quarter. Otherwise the grade must be reported by the instructor as "F."

### COURSE NUMBERING SYSTEM

The instruction of the College is administered by five main groups:

- The Faculty of the Graduate School.
- The Faculty of the School of Agriculture.
- The Faculty of the School of Education and Sciences.
- The Faculty of the School of Mechanic Arts.
- The Faculty of the Vocational School.

The number of each course in the Agricultural school begins with the figure 1; those in the School of Education and Sciences, with the figure 2; those in the Mechanic Arts School, with the figure 3, and those in the Vocational School, with 4.

Each course is designated by a number containing three figures. The first indicates the School in which it is offered; the second (with a few exceptions), its academic classification; and the third, either the quarter in which it is usually given or its serial number.

#### *Examples:*

History 211 is a course offered by the Faculty of the School of Education and Sciences; it is open to freshmen, and is usually offered in the first quarter (Fall Quarter).

Chemistry 111 is a course offered by the Faculty of the School of Agriculture; it is open to freshmen, and it is the first of a series.

Physics 323 is a course offered by the Faculty of the School of Mechanic Arts; it is open to Sophomores, and it is usually given in the third quarter (Spring Quarter).

*Exceptions:*

(a) There are some unavoidable exceptions to this system, especially with reference to the second and third figures. Some courses with the middle figure 1 are open to upperclassmen, and there are a few courses with the middle figure 2 open to freshmen. Courses are not in every case given during the quarter indicated by the third figure (where the third figure is meant to indicate the quarter rather than the serial number).

(b) Courses in all Schools open to advanced undergraduates and graduates are numbered 500 plus; strictly graduate courses are numbered 600 plus.

(c) Courses in the Vocational School are numbered 400 plus.

### CREDIT EVALUATION SYSTEM

The credit value of each course is indicated by three numbers. The first represents the full credit value in quarter hours, the second, the number of recitations per week, and the third, the number of hours spent in the laboratory each week. For example: French 211, Credit 5(5-0) means that this course carries 5 hours credit, and is conducted by lecture or recitation 5 times per week with no assigned laboratory; while Chemistry 112, Credit 5(3-4) carries 5 hours credit, 3 hours being devoted to lecture or recitation and 4 spent in the laboratory. Two hours in the laboratory are required for 1 hour of credit.

### GENERAL GRADUATION REGULATIONS

(See special graduation requirements for each School.

Pages 48, 54, 56.)

Graduation from the A. and T. College involves the satisfaction of the following requirements:

1. The candidate for a degree must have selected a specific curriculum, having the approval of the Dean of the School in which he is registered. This curriculum must be completed.

2. Whether registered in Agriculture, Education and Sciences or Mechanic Arts, he must complete at least 200 quarter hours and 200 grade points.

3. The credit hours must aggregate at least 200, including the required courses in military science and physical education. The grade points must equal 1 times the number of credit hours undertaken, whether passed or failed. If after securing 200 credit hours the student is deficient in grade points, he must take additional courses to secure these points. The student must obtain an average of 1.5 or more in his major field and 1.0 or more in his minor field. A minimum of one year in residence is required.

4. It is the aim of the institution to send forth men and women who are fit representatives. To this end, the College reserves the right to refuse to admit any student to the Senior Class or to graduate anyone who though qualified by class record may otherwise seem unfit.

5. Payment of diploma fee of five dollars (\$5.00) must be made to the Bursar on or before May 1 preceding graduation.

6. Students in the graduating class must clear all conditions by the end of the quarter preceding graduation.

7. Candidates for graduation must file an application for graduation upon the form provided, at least four months prior to the date they expect to graduate. A minimum of one year of residence is required.

### **GRADUATION WITH HONORS**

By a vote of the Administrative Council in the Spring of 1938, it was decided that henceforth graduation honors would be awarded candidates completing all requirements for graduation in accordance with the following stipulations: (1) Those who maintain throughout their course a grade point average within the range of 2.00 to 2.24 will receive "honor"; (2) those who maintain a general average within the range from 2.25 to 2.49 will receive "high honor"; and (3) those who maintain an average within the range from 2.50 to 3.00 will receive "highest honor."

### **DEGREES**

All students successfully completing any of the four-year courses of study shall be entitled to the degree of Bachelor of Science.

1. Those graduating from a four-year curriculum offered in the School of Mechanic Arts shall be entitled to the Bachelor of Science degree in Engineering, Architectural Engineering, Industrial Arts, Fine Arts, Commercial Industries, Business Administration or Commercial Education.

2. Those graduating from a four-year curriculum in Agriculture shall be entitled to the degree of Bachelor of Science in Agriculture.

3. Students successfully completing a curriculum in the School of Education and Sciences shall be entitled to the degree of Bachelor of Science.

4. The Master of Science degree will be awarded those meeting requirements for same. (See page 00.)

### **STUDENT ORGANIZATIONS**

#### **ALPHA KAPPA MU HONOR SOCIETY**

The Alpha Kappa Mu Honor Society is a national scholarship organization with local chapters established in grade "A" colleges.

The local chapter is now known as the Gamma Tau Chapter of the Alpha Kappa Mu Honor Society, and qualifications for Gamma

Tau which have been changed to conform to those of the National Organization are as follows:

1. Candidate must have completed ninety quarter hours with an average of not less than 2.3 or sixty semester hours with same said average. These must include all required courses listed for freshmen and sophomores.

2. Membership is open to all students of the College provided they meet scholastic requirements, and, in the case of transfer students, there was and is a chapter of Alpha Kappa Mu or some other honor society with equivalent standards, rules and regulations at the institution from which they transferred.

3. Candidates must never have been suspended for disciplinary problems.

The Society encourages participation in at least one extracurricular activity. All students recommended by the Registrar as having the qualifications listed above are eligible for membership.

### **SOPHIST SOCIETY**

This organization is composed of regular college students of Freshman, Sophomore, and Junior classification who maintain a minimum average of 2.3. The purpose of this organization is to encourage high scholarship among all college students.

Persons who remain in the Sophist Society for three years are eligible for membership in Gamma Tau Honor Society during the senior year.

### **FRATERNITIES**

The following national fraternities have chapters at the college: Alpha Phi Alpha, Omega Psi Phi, Phi Beta Sigma, and Kappa Alpha Psi.

### **SORORITIES**

The following national sororities have established local chapters: Alpha Kappa Alpha, Delta Sigma Theta, Zeta Phi Beta, and Iota Phi Lambda.

### **PAN-HELLENIC SOCIETY**

The Pan-Hellenic Society is federation of all fraternities and sororities on the campus. Its membership is composed of elected representatives from each Greek-letter organization. The main purpose is joint action for maintaining high standards in fraternity and sorority life at the institution.

### **COLLEGIATE 4-H CLUB**

The Collegiate 4-H Club is composed of students who have had previously experience as 4-H Club members in high school. An informal meeting of a business and social nature is held monthly. Honorary members may be elected to the club from time to time.

### THE COLLEGIATE NFA CLUB

The Collegiate Chapter of the New Farmers of America is composed of agricultural students who are former NFA members or trainees enrolled in the teacher training department of the School of Agriculture. The purpose of the collegiate chapter is to give training and experience to students who will later become teachers of vocational agriculture. Honorary members may be elected to the collegiate chapter of the New Farmers of America.

### THE AGRICULTURAL ASSOCIATION

This association is composed of agricultural students. It meets twice monthly for business and social purposes.

Honorary members may be elected to the association from time to time.

### RELIGIOUS ACTIVITIES

It is the purpose of the College to maintain a high moral tone and develop a broad, tolerant religious spirit among the students. In this connection there are well-organized Y. M. C. A. and Y. W. C. A. branches, which meet twice a month. A special service is conducted in the chapel each month by pastors representing the different denominations of the city. Sunday school is conducted every Sunday during the school year. All religious services will be free from secretarianism.

### THE COLLEGE BAND

The College Band of more than fifty pieces occupies an important place in the life of the Institution. Instruction by an expert bandmaster is given in all band instruments. A splendid opportunity is thus offered competent and worthy students to learn band music without extra expense to themselves.

Membership in the band is open to regular students of the College.

### FOREIGN LANGUAGE CLUBS

*Le Cercle Francais* and *El Circulo Espanol* and *Die Deutsche Gesellschaft* meet once a month during the academic year.

### THE FORTNIGHTLY CLUB

This organization, which gets its name from the period normally intervening between each meeting, is composed mainly of English majors and other advanced students who are interested in coming together for the purpose of exchanging ideas about books and people that have influenced or are influencing the life of their time.



### **THE DEBATING SOCIETY**

The Kappa Phi Kappa Forensic Society, better known as the Debating Society, is designed to stimulate interest in public speaking and debate. It is composed of college students who have distinguished themselves in public performances in these fields.

### **THE A. AND T. LITTLE THEATRE**

The A. and T. Little Theatre is an outstanding campus activity whose genuinely artistic work bespeaks the excellent training and unusual opportunities rendered by the dramatic workshop and laboratory theatre for unlimited experimentation in acting, playwriting, stagecraft, and play direction.

### **CHORAL ORGANIZATIONS**

The Choral Society, The Men's Glee Club and The A Cappella Choir have won for themselves an enviable reputation, both at home and abroad, for the genuine artistry of their work. These organizations, open to all qualified students, offer extracurricular activity which is at once instructive and enjoyable.

## **SCHOLARSHIPS AND PRIZES**

### **COLLEGE SCHOLARSHIPS**

The College will grant a scholarship for one year to any student who makes a grade average of 2.5 for the three quarters of the preceding school year. This scholarship will pay tuition and can be used for no other purpose.

### **SCHOLARSHIPS IN DAIRY HUSBANDRY**

Six scholarships are given each year to high school graduates who wish to take a one-year short course in dairy husbandry. Board, room and all fees are paid. Applications should be obtained from the Dean of Agriculture before August 1st of each year.

### **NFA SCHOLARSHIPS**

The College offers a one-year scholarship of \$50.00 to the NFA member graduate from high school who has the best record in supervised practice work and scholastic activities for a period of four years.

### **Y.W.C.A. SCHOLARSHIP**

As a means of promoting scholarship among high school girls and to encourage them to attend college, the College Y. W. C. A. offers, each year, a scholarship of \$50.00 to be used in defraying college expenses. The selection is made at the "Y" May Festival by the May Queen. (May Queen, 1946, Ruby Troxler, Greensboro, N. C.)



### 4-H CLUB WORK SCHOLARSHIP

In order to promote interest among Negro 4-H Club boys in North Carolina and to encourage continuous achievements in all phases of 4-H Club Work; The College offers a one-year scholarship of \$50.00 to the high school graduating senior with the best record in 4-H Club work. This is to be used in defraying expenses at the institution.

### WILLIAM H. FOUSHEE MEMORIAL SCHOLARSHIP CUP

Dr. J. M. McGee of Greensboro each year presents a scholarship cup in memory of William H. Foushee, Jr., a former student of A. and T. College to the member of the Junior Class with the highest scholarship average. (Winner, 1946, William Skelton, Greensboro, N. C.)

### REGISTER AWARD

As a means of promoting a wider interest and greater activity on the part of the students in the field of journalism, the College *Register* awards a gold key to those members of the graduating class who completed a period of at least two years of meritorious service as members of the *Register* Staff.

### ALUMNI ATHLETIC AWARD

The Philadelphia branch of the College Alumni Association awards a gold medal each year to the student of the graduating class making the best record in major intercollegiate sports.

### ALUMNI SERVICE AWARD

The Gate City (Greensboro) Chapter of the Alumni Association makes an award each year to that member of the graduating class, voted by the Administrative Council as having rendered the "most distinctive service to the College and to the community."

### KAPPA PHI KAPPA KEY

The Kappa Phi Kappa Key was first awarded in 1928 by the Kappa Phi Kappa Debating Society.

### COHEN PRIZE

The Ned Cohen Prize is given by the Ned Cohen Jewelry Box of Greensboro, to the student in Secretarial Science who receives the highest scholastic average.

### DEBATING TROPHY

The Rand-Hawkins-McRae debating trophy is provided by Messrs. J. M. Rand, J. A. Hawkins and S. D. McRae, graduates of the college, Class of 1906, and is awarded annually to the members of the graduating class who have at least three years of varsity debating.

### MEDALS

The John Merrick Medal will be awarded to the student completing the four-year mechanical course with the best record in the college department.

The M. F. Spaulding Medal will be awarded to the student completing the full four-year course in agriculture with the best record.

The Saslow's, Inc., Medals will be awarded (a) to the members of the graduating class who completes the four-year course in the School of Education and Sciences with best record, and (b) to the student who graduates with best record in Social Sciences.

The George H. Keyes Medal is provided by Karl Martin Keyes, a member of the class of 1938, in memory of his father, the late George H. Keyes.

It will be awarded to the student completing the four-year agricultural course with the best record in Farm Mechanics or Agricultural Engineering.

### ALUMNI LOAN FUND

The primary purpose of this loan fund is to provide financial aid to needy students who have demonstrated potential ability to become useful citizens. Evidences of this ability are character, mental alertness, industry, and scholarship. No student is encouraged to burden himself with debt unless he has a definite purpose in continuing his formal education at the College.

When a student's application is approved, he must sign a formal note for the amount of the loan. For Juniors the note is usually made out payable on or before entering school the following fall. For Seniors the note is usually made out payable within one year from the date of the loan. For emergency loans the note is made out payable within thirty to sixty days from the date of the loan.

No student may borrow more than \$50.00 within one year. Usually loans will be limited to \$20.00 or less a quarter. The amount of the quarterly loan may be exceeded in exceptional cases, but the maximum of \$50.00 will not be exceeded in any case.

All money borrowed from the Alumni Loan Fund must be used for direct college expenses. Such expenses may be: tuition, room rent in a college dormitory, board at the College Dining Hall, books at the College Canteen, and laboratory fees. No cash will be issued on any loan.

### HICKS-MOSLEY STUDENT LOAN FUND

The Hicks-Mosley Student Loan Fund, which was established during the school year 1939-40 by Miss Esther Hicks, Commercial Education instructor at the College, in honor of her parents, is designed to aid worthy students who have clearly evidenced talent and ability but who lack the means to continue their schooling and deserve moderate financial aid that will enable them to complete their studies for a beneficial period of time.

Small amounts of money will be loaned at the crucial times when deemed advisable and a moderate rate of interest charged. Students are to apply by written application according to the time schedule indicated below, and all loans are due (both principal and interest) September 1, of the year after loan is granted. All loans must be secured by legal note.

Students desiring loans should apply during the following periods:

For loans granted Fall Quarter,

September 1, September 15.

For loans granted Winter Quarter,

December 1, December 15.

For loans granted Spring Quarter,

March 1, March 15.

### SUMMER SCHOOL

*In Point of Continuous Service, the Oldest Summer School in the Country for Negroes*

The forty-ninth annual summer session of the A. and T. College Summer School will begin June 8, 1948, and continue for ten weeks, thereby completing a full quarter of college work under the new accelerated plan.

Aside from the splendid opportunity which the Summer School offers teachers in service to raise their certificates and thereby obtain better salaries, the College makes it possible for the ambitious teacher to obtain a standard degree by attending the summer school.

College students may shorten their stay in college by attending summer school. Students from other institutions may enter the summer session for credit in their respective institutions, by permission from either the President or Dean of their respective colleges. Such students will not be required to present a complete record of their previous training, but will be required to present a signed statement from the President or Dean indicating the summer courses for which credit will be allowed.

College graduates may use their time in summer school meeting requirements for the Master of Science degree. Persons interested in earning this degree should make application for candidacy early in order that their program may be arranged with this end in view.

### EVENING SCHOOL

The College conducts an Evening School for teachers in service, and others who can qualify for the courses offered. All evening courses are the same as such courses that are offered in the regular day classes, and may be offered towards a degree. Admission to the Evening School is the same as for the regular day classes. The same amount of work.

## EXPENSES AND FEES

Boarding students entering for the first time should be prepared to make the following payments:

|                                                  | <i>Men</i> | <i>Women</i> |
|--------------------------------------------------|------------|--------------|
| Board .....                                      | \$ 22.00   | \$ 22.00     |
| ****Lodging .....                                | 7.00       | 7.00         |
| *Tuition, Fall Quarter.....                      | 18.00      | 18.00        |
| Laundry .....                                    | 2.00       | 1.00         |
| **Registration .....                             | 12.00      | 12.00        |
| Athletic Fee .....                               | 8.00       | 8.00         |
| Laboratory Fee .....                             | 5.00       | 5.00         |
|                                                  | <i>Men</i> | <i>Women</i> |
| College Register Fee (Student Publications)..... | \$ 3.00    | \$ 3.00      |
| Rental of Mail Box .....                         | 1.00       | 1.00         |
| Dormitory Room Key Deposit .....                 | .50        | .50          |
| Library and Laboratory Fee.....                  | 2.00       | 2.00         |
| Student Activity Fee .....                       | 2.00       | 2.00         |

Total payment first month, Sept. 17, 1947....\$ 82.50 \$ 81.50

(A deposit of ten dollars must be added to this total by R.O.T.C. Students. (See p. 0.)

|                                             |          |          |
|---------------------------------------------|----------|----------|
| Second payment, due Oct. 15, 1947.....      | \$ 31.00 | \$ 30.00 |
| Third payment, due Nov. 12, 1947.....       | 31.00    | 30.00    |
| Fourth payment, due Dec. 10, 1947.....      | 31.00    | 30.00    |
| Fifth payment, due Jan. 2, 1948             |          |          |
| *(Quarterly lab. and tuition fees due)..... | 54.00    | 53.00    |
| Sixth payment, due Feb. 2, 1948.....        | 31.00    | 30.00    |
| Seventh payment, due March 1, 1948.....     | 31.00    | 30.00    |
| Eighth payment, due April 1, 1948           |          |          |
| *(Quarterly lab. and tuition fees due)..... | 54.00    | 53.00    |
| Ninth payment, due May 1, 1947.....         | 31.00    | 30.00    |

Grand total .....\$376.50 \$367.50

A student boarding and lodging in the city should be prepared to make the following entrance payments:

|                                       |         |
|---------------------------------------|---------|
| Tuition and Occupancy (Monthly) ..... | \$ 9.00 |
| ***Registration .....                 | 9.00    |
| Athletic Fee .....                    | 8.00    |
| Laboratory Fee .....                  | 5.00    |

\* An out of state tuition of \$7.50 per quarter will be charged for non-residents of North Carolina.

\*\* Registration fee includes lectures and lyceum entertainments, library privileges, medical care by college physician, and all prescriptions prescribed by him for campus students. This fee does not include hospitalization, operations, dental service, or prescriptions written by other physicians.

\*\*\* Registration fee includes lectures and lyceum entertainments and library privileges.

\*\*\*\*Lodging at North Campus, \$6.00 per month.

|                                                 |          |
|-------------------------------------------------|----------|
| College Register (Student Publications) .....   | 3.00     |
| Student Activity Fee .....                      | 2.00     |
| Library and Laboratory Fee.....                 | 2.00     |
| <hr/>                                           |          |
| Total payment first month, Sept. 17, 1947 ..... | \$ 38.00 |
| Second payment, due Oct. 15, 1947 .....         | 9.00     |
| Third payment, due Nov. 12, 1947 .....          | 9.00     |
| Fourth payment, due Dec. 10, 1947 .....         | 9.00     |
| Fifth payment, due Jan. 2, 1948                 |          |
| (Quarterly lab. fees due) .....                 | 14.00    |
| Sixth payment, due Feb. 2, 1948.....            | 9.00     |
| Seventh payment, due March 1, 1948 .....        | 9.00     |
| Eighth payment, due April 1, 1948               |          |
| (Quarterly lab. fees due) .....                 | 14.00    |
| Ninth payment, due May 1, 1948.....             | 9.00     |
| <hr/>                                           |          |
| Grand Total .....                               | \$120.00 |

### Quarterly Payments

(Laboratory fees payable at the beginning of each quarter)

|                                        |         |
|----------------------------------------|---------|
| Bacteriology Lab. ....                 | \$ 3.00 |
| Dairy Lab. 131, 132 .....              | 2.00    |
| Dairy Lab. 133 .....                   | 4.00    |
| Botany Lab. ....                       | 3.00    |
| Chemistry Lab. ....                    | 5.00    |
| Physics Lab. ....                      | 3.00    |
| Zoology Lab. ....                      | 3.00    |
| Textiles Lab. ....                     | 2.00    |
| Agronomy Lab. 122, 123 .....           | 1.00    |
| Foods Lab .....                        | 4.00    |
| Drawing Fee .....                      | 2.00    |
| Commercial Industrial Shops.....       | 5.00    |
| Electrical Engineering .....           | 3.00    |
| Plumbing .....                         | 5.00    |
| Machine Shop Practice .....            | 2.00    |
| Carpentry .....                        | 5.00    |
| Auto Mechanics .....                   | 5.00    |
| Cement Finishing and Bricklaying ..... | 5.00    |
| Shoe Repairing .....                   | 5.00    |
| Tailoring .....                        | 5.00    |
| Poultry 122 .....                      | .50     |
| Typewriting .....                      | 5.00    |
| Industrial Arts Shop.....              | 5.00    |
| General Science 131, 132 .....         | 2.00    |
| Welding .....                          | 5.00    |
| Cabinet Making .....                   | 5.00    |
| Ceramics .....                         | 3.00    |



**OTHER FEES**

|                                                                               |         |
|-------------------------------------------------------------------------------|---------|
| Fee (for each transcript of student's record after the first) .....           | \$ 1.00 |
| Fine per day for late class registration each quarter .....                   | 1.00    |
| Radio fee per month .....                                                     | .50     |
| Music (two lessons per week and use of Piano for practice<br>per month) ..... | 4.00    |
| Practice teaching (other than Vocational Agriculture) .....                   | 25.00   |

NOTE: All fees and bills are payable in advance. Make all post office money orders, bank drafts and cashier's checks payable to A. and T. College. Personal checks are not accepted unless certified.

**SPECIAL NOTICE**

Due to the rising cost of living the Administration reserves the right to raise fees and charges without advance notice should conditions warrant.

F. D. BLUFORD, *President.*

**SELF-HELP**

The institution cannot guarantee jobs to students who expect to work their way through college. Many students find work in private families and in other occupations, by means of which they defray a portion of their expenses. A person of ability and energy who can do work of any kind can generally find employment, but prospective students are cautioned against depending upon such unreliable sources of income.



# **INSTITUTIONAL ORGANIZATION**

---

## **SCHOOL OF AGRICULTURE**

**JOHN C. McLAUGHLIN, Dean**

The School of Agriculture aims to educate efficient farmers, teachers of agriculture, agricultural extension workers, and leaders in other lines of agricultural activities. Courses are given in various departments of technical agriculture.

The School of Agriculture is equipped to train men and women in horticulture, dairy husbandry, poultry production, rural engineering, rural sociology, rural education agronomy, and animal husbandry.

### **Agricultural Building**

The Noble Agricultural Building provides space for agricultural class and laboratory activities. The third floor is occupied by the chemistry laboratory lecture room and store-rooms; large rooms are equipped on the second floor for the botanical and zoological laboratories, classrooms for these courses and office space for the State Extension Service; the first floor is occupied by the office of the director of the School of Agriculture, office of the State District Farm and Home Demonstration Agents, the Home Economics Department and the bacteriology laboratory; the basement provides space for laboratories in soils, farm crops, horticulture and dairy husbandry and offices.

### **Farms**

The College has four farms. The old farm is located on State Highway No. 70, and on the Southern Railroad from Greensboro to Goldsboro, about one mile from the campus, and contains one hundred and three acres. There is on this farm a modern piggery, dairy barn, poultry plant, 78 acres of permanent pasture, implement sheds, barns and orchard containing several hundred fruit trees of various kinds, and a two-story brick dormitory. The dormitory is for the dairyman and the poultryman.

The second farm contains one hundred and forty-three acres and is located on the McConnell Road about one mile south of the old farm. It has a large shed on it for sheltering farm implements.

The third farm is located three quarters of a mile south of the old farm partly facing the new farm, north of McConnell Road, and contains two hundred and sixty-one acres. There are on this farm five dwelling houses and six barns.

The fourth farm contains one hundred and seventy-three acres and adjoins farm number two on the south side.

These farms are equipped with modern machinery necessary for successful farming under North Carolina conditions. The farms give an opportunity for instruction and practice in handling small farms on an intensive basis.

### **Four-Year College Course in Agriculture**

This course leads to B.S. degree in Agriculture. The entrance requirements are the same as stated elsewhere in this catalogue.

### **Requirements for Graduation**

The successful completion of one of the prescribed curricula consisting of a minimum of 200 quarter hours and 200 grade points is required for graduation. In addition the student must have a thorough, practical knowledge of farming activities and rural life conditions before receiving his degree. Students who have not had this experience before entering the course will be given an opportunity to get it before ending their college career.

### **The Curriculum**

The curriculum in General Agriculture aims to give the student instruction in courses which will prepare him for intelligent practical farming, farm management and extension service.

The curriculum for Teachers of Agriculture is designed to prepare the trainee to qualify under the provisions of the Federal Vocational Acts to occupy positions as teachers of vocational agriculture in North Carolina and other states.

Students who expect to teach vocational agriculture in North Carolina will be required to meet the professional requirements of the State.

**Freshmen**

|                                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------|-------------|---------------|---------------|
| English 211, 212, 213 .....          | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Zoology 111 or Botany 111 .....      |             |               | 5(3-4)        |
| Chemistry 111, 112, 113 .....        | 5(3-4)      | 5(3-4)        | 5(2-6)        |
| Poultry 111, 112 .....               | 3(2-2)      | 3(2-2)        |               |
| Horticulture 113 .....               |             |               | 4(2-4)        |
| Military Science 211, 212, 213 ..... | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Music or Art 211, 212, 213 .....     | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Education 211, 212, 213 .....        | 1(1-0)      | 1(1-0)        | 1(1-0)        |
| Econ. 114, 115 .....                 | 3(3-0)      | 3(3-0)        |               |

**Sophomores**

|                                 | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------|-------------|---------------|---------------|
| Zoology 111 or Botany 111 ..... |             |               | 5(3-4)        |
| Horticulture 133 .....          | 4(2-4)      |               |               |
| English 214 .....               | 3(3-0)      |               |               |
| Dairy 121 .....                 | 5(3-4)      |               |               |
| Bacteriology 123 .....          |             |               | 5(3-4)        |
| Horticulture 122 .....          |             | 3(2-2)        |               |
| Agronomy 122, 123 .....         |             | 3(2-2)        | 3(2-2)        |
| Animal Husbandry 122 .....      |             | 3(2-2)        |               |
| Poultry 122 .....               |             | 3(2-2)        |               |
| Zoology 133 .....               |             |               | 5(3-4)        |
| Military Science .....          | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Electives .....                 |             | 3             |               |

**CURRICULUM FOR TEACHERS OF AGRICULTURE****Juniors**

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| Edu. 237, 238, 231 ..... | 3(3-0)      | 3(3-0)        | 5(5-0)        |
| Econ. 231, 142 .....     | 5(5-0)      |               | 5(5-0)        |
| Dairy 134, 145 .....     |             | 5(3-4)        | 4(2-4)        |
| An. Hus. 132, 131 .....  | 5(3-4)      |               | 3(2-2)        |
| Agron. 143 .....         | 3(2-2)      |               |               |
| Dairy 146 .....          |             | 4(2-4)        |               |
| Hort. 123 .....          |             |               | 3(2-2)        |

**Seniors**

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| Edu. 141, 142, 143 ..... | 3(3-0)      | 3(3-0)        | 3(3-0)        |
| Edu. 144, 145, 146 ..... | 2(0-4)      | 2(0-4)        | 2(0-4)        |

|                                |               |        |
|--------------------------------|---------------|--------|
| Agron. 141, 131 .....          | 3(2-2) .....  | 3(2-2) |
| An. Hus. 141 .....             | 3(3-0) .....  |        |
| Rural Eng. 141, 142, 143 ..... | 3(1-4) 3(0-6) | 3(0-6) |
| Ed. 501 .....                  | 3(2-2) .....  |        |
| Bot. 123 .....                 | 3(2-2) .....  |        |
| R. Soc. 501 .....              | 3(3-0) .....  |        |
| Electives .....                | 3( )          | 2( )   |

### ELECTIVES FOR AGRICULTURAL STUDENTS

| <i>Fall</i>      | <i>Winter</i> | <i>Spring</i>   |
|------------------|---------------|-----------------|
| Econ. 143        | Educ. 249     | Educ. 236       |
| Physics 321      | Educ. 224     | Dairy 132       |
| Sec. Sc. 317     | Educ. 341     | A. Hus. 134     |
| Eng. 231         | Geo. 240      | Geo. 241        |
| Zool. 121        | Physics 322   | Ed. 221         |
| R. Eng. 111, 112 | Eng. 222, 231 | Eng. 221 or 222 |
|                  | Hort. 119     | Bot. 122        |
|                  | Poul. 501     |                 |
|                  | B. A. 232     |                 |

Students desiring to fit themselves for Civil Service examinations may elect other courses from any department that fits their individual need, with the approval of the director.

### MAJOR IN GENERAL AGRICULTURE AND EXTENSION SERVICE

| Junior Year                             |        |        |        |  |
|-----------------------------------------|--------|--------|--------|--|
|                                         | Fall   | Winter | Spring |  |
| Sociology 231 .....                     | 5(5-0) | .....  | .....  |  |
| Econ. Commercial Law, 143, 335 .....    | 5(5-0) | 5(5-0) | .....  |  |
| Econ. 142 .....                         | .....  | .....  | 5(5-0) |  |
| Poultry 131 .....                       | 3(2-2) | 3(1-4) | .....  |  |
| Agronomy 131 .....                      | 3(2-2) | .....  | .....  |  |
| An. Hus. 132, 131 .....                 | 5(3-4) | .....  | 3(2-2) |  |
| Education 231 .....                     | .....  | .....  | 5(5-0) |  |
| Horticulture 123 .....                  | .....  | .....  | 3(2-2) |  |
| *Electives .....                        | .....  | 5( )   | 2( )   |  |
| Senior Year                             |        |        |        |  |
|                                         | Fall   | Winter | Spring |  |
| **Observation and Practice in Extension |        |        |        |  |
| 148, 149 .....                          | 5(5-0) | 5(5-6) | .....  |  |
| Sociology 501 .....                     | 3(3-0) | .....  | .....  |  |
| Agronomy 141, 143 .....                 | 3(2-2) | .....  | 3(2-2) |  |

\* Electives must be approved.

\*\* Students interested in general agriculture may select other courses.

|                               |        |               |
|-------------------------------|--------|---------------|
| Dairy 134, 145 .....          | 5(3-4) | 4(2-4)        |
| Dairy 146 .....               | 4(2-4) | .....         |
| Ext. Problems 150 .....       | .....  | 3(0-6)        |
| Bot. 123 .....                | 3(2-2) | .....         |
| Rur. Eng. 141, 142, 143 ..... | 3(1-4) | 3(0-6) 3(0-6) |
| *Electives .....              | .....  | 5( )          |

## TWO-YEAR COLLEGIATE COURSE IN AGRICULTURE

This course is designed for those who are actually engaged in farming or who expect to be farmers. The course is intended to meet the needs of young people of the State who for any reason are not financially able, or who do not desire to take the full four years of college work.

The course gives practical work covering the general and specialized features of agriculture in North Carolina.

Students taking the two-year course do not have to adhere strictly to the outline; other courses may be substituted that will best meet the needs of the individual student with the advice of the Dean. Students may elect work for one year, or one quarter as will best meet their immediate needs.

The opportunities for graduates of this course will depend largely upon the character of the student's work while in college, his previous experience, his personality, ability, ambition and industry. With the readjustment through which agriculture is now passing, and the close competition farmers are forced to meet, there is coming a condition which will make it more necessary than ever before for the self-sufficient as well as the commercial farmers, to be trained and intelligent.

A certificate will be awarded on the satisfactory completion of this agricultural course. In the event a student decides to return later to complete the full four-year course, he will receive credit toward his degree for the two years of work already done.

---

\* Electives must be approved.

## SUGGESTED OUTLINE OF TWO-YEAR COLLEGIATE COURSE IN AGRICULTURE

### First Year

|                           | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------|-------------|---------------|---------------|
| Econ. 114, 115 .....      | 3(3-0)      | 3(3-0)        | .....         |
| Poul. 111, 112, 122 ..... | 3(2-2)      | 3(2-2)        | 3(2-2)        |
| Eng. 211, 212, 213 .....  | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Hort. 123, 113 .....      | .....       | .....         | 4(2-4)        |
| Agron. 122, 123 .....     | 3(2-2)      | 3(2-2)        | 3(2-2)        |
| An. Hus. 122 .....        | .....       | 3(2-2)        | .....         |
| Bot. 121 .....            | .....       | .....         | 3(2-2)        |
| Dairy 121 .....           | .....       | .....         | 5(3-4)        |
| Chem. 111 .....           | 5(3-4)      | .....         | .....         |

### Second Year

|                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------|-------------|---------------|---------------|
| Econ. 231, 142 .....        | 5(5-0)      | .....         | 5(5-0)        |
| An. Hus. 131, 132 .....     | 3(2-2)      | 5(3-4)        | .....         |
| Zool. 131 .....             | .....       | .....         | 3(2-2)        |
| Agron. 141, 143 .....       | 3(2-2)      | .....         | 3(2-2)        |
| Dairy 133, 145, 146 .....   | 4(2-4)      | 4(2-4)        | 4(2-4)        |
| R. Eng. 141, 142, 143 ..... | 3(1-4)      | 3(0-6)        | 3(0-6)        |



## **SCHOOL OF MECHANIC ARTS**

---

**J. M. MARTEENA, Dean**

The School of Mechanic Arts offers many opportunities to students to help them prepare to meet the demands of industry for leaders and skilled workmen in various technical professions and vocations. In addition to the professional courses and those designed to prepare skilled workmen, the department offers training to prepare teachers in many of these fields. Students who complete the teaching requirements as outlined in the several curricula will qualify for the Class "A" Certificate.

The four-year courses leading to the Bachelor of Science degree are as follows: Architectural Engineering, Business Administration, Commercial Education, Commercial Industries and Industrial Education, Electrical Engineering, Fine Arts, Industrial Arts and Mechanical Engineering.

Majors in Mathematics or Physics are offered to students in all departments.

The Vocational Courses leading to certificates are as follows: Auto Mechanics, Carpentry, Cabinet Making and Upholstering, Shoe Repairing and Leather Work, Tailoring, Machine Shop Practice, Masonry, Secretarial Science, Plumbing and Steam Fitting, Welding, Radio Servicing, Electric Wiring.

### **Mechanic Arts Division**

In the past few years the State of North Carolina has invested many thousands of dollars in equipment for the various departments of the School of Mechanic Arts. Each department has among its equipment some of the latest designs in machinery and tools for each particular line of work.

### **Admission to the School of Mechanic Arts**

The admission requirements are generally the same as those given for entrance to the freshman class. One year of algebra and one year of plane geometry are required for stu-

dents electing a curriculum leading to a B.S degree. Students admitted with a condition in plane geometry will be required to remove it during their freshman year.

### Advanced Standing

Students who have attended colleges of approved standing will be given appropriate credit for work completed there, upon the presentation of the proper certificate to the Registrar, who will determine the credits for the curriculum which the student wishes to take.

### Requirements for Graduation

The requirements for graduation in any division of the School of Mechanic Arts are the satisfactory completion of all courses in one of the prescribed curricula.

### Outline of the First Year's Work of All Four-Year Curricula

In order to permit all students in the School of Mechanic Arts to find out definitely what courses they desire to pursue, the first year of all four-year curricula is made uniform.

#### Freshman Year

|                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------|-------------|---------------|---------------|
| Chemistry 111, 112, 113* .....             | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Mathematics 311, 312, 313** .....          | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| English, 211, 212, 213 .....               | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Mechanical Drawing, M.E. 311, 312 .....    | 3(0-6)      | 3(0-6)        | .....         |
| Descriptive Geometry 314 .....             | .....       | .....         | 3(1-4)        |
| Military Science, M.E. 211, 212, 213 ..... | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Orientation, Education 211, 212, 213 ..... | 1(1-0)      | 1(1-0)        | 1(1-0)        |
|                                            | <hr/> 21    | <hr/> 21      | <hr/> 21      |

\* Students in Fine Arts and Industrial Education are not required to take Chemistry 113.

\*\* Students in Fine Arts may substitute History 213 and Art 320 for the Spring Quarter.

## THE SCHOOL OF EDUCATION AND SCIENCES

---

WARMOTH T. GIBBS, Dean

The school of Education and Sciences offers to the student opportunity to prepare either for teaching or for any one of several distinct vocational and professional pursuits. The course is so constructed that the student, although specializing, may also come in contact with subjects that possess wide cultural value and insure that broader outlook upon life which characterizes the educated man or woman. This School also offers professional courses in subjects required by the State Board of Education for the Standard "A" grade teaching certificate.

This School includes the following fields of study: economics, education, English, foreign languages, general science, music, physical education and the social sciences as well as subjects required for completion of the pre-medical course.

### Requirements for Admission

Admission requirements are the same as those given for entrance to the Freshman Class (see page 32).

### Majors and Minors

A student upon entering his third year is expected to concentrate in two definite fields of study. In arranging his work he must conform to the following regulations: (1) At least forty-five hours of the total number required for graduation must be chosen from a particular subject or field, in which he must maintain a graduate point average of 1.5 or more. This will constitute the student's major group. (2) At least 27 hours must be chosen from another subject or field, in which he must maintain a grade point average of 1.0 or more.\* This will constitute his minor group. The major should represent the student's principal field of interest and the minor, that of his second selection. Persons preparing to teach are advised to complete majors in two fields.

---

\* Fifty hours are required for a major in English; thirty-five hours, for a minor.

No student is permitted to major or minor in a subject until he has filled out and turned in the special application form for majors and minors and has, thereby, received the written approval of the heads of the two subject-matter departments in which he proposes to concentrate; that is, the department of his major and minor, or of his two major fields.

The following are suggested as fields for major study in this School:

1. Biological Science.
2. Chemistry.
3. English.
4. Mathematics.
5. Modern Languages.
6. Music.
7. Physical Education.
8. The Social Sciences.

A student may select any one of the above fields or physical education for a minor.

### Graduation Requirements

A minimum of 200 credit hours and 200 grade points is required for graduation.

In addition to majors and minors, each candidate for graduation will be required to meet the following distribution requirements both as to subjects and hours:

1. Foreign language, 10 hours for those who present two admission units of high school credit in the same language, and who pass the placement test in same, others 15 hours.

\*2. Mathematics, 10 hours.

3. English composition, 15 hours; and literature (English, European, or American) 5 hours.

4. Science: 10 hours of chemistry or physics and 10 hours of biological sciences.

5. Social Science, History, of the Negro, of America, of Modern Europe\*\*, 5 hours each: 15 hours, total.

---

\* Persons holding a satisfactory State teacher's certificate may substitute general science for mathematics.

\*\* Political science, economics or sociology may be substituted for modern European history.

6. Music or art appreciation, 9 hours.
7. Military science, 12 hours; Physical Education, 6 hours.
8. Health and physical education for women, 9 hours.
9. Orientation, 1 hour.
10. Vocations, 6 hours.
11. Research, 3 hours.

### Senior Research Rules

A candidate for the bachelor's degree in the School of Education and Sciences must satisfactorily complete a senior research project as part of the graduation requirement. This project may be written in the candidate's major or minor field, and the student may choose any instructor in the field in which he is writing the paper as his adviser. This adviser will automatically become a member of the Senior Research Committee, the Chairman of which is the instructor in charge of the research course (Research 246). The candidate is responsible first to his adviser and then to the Chairman of the Senior Research Committee.

At the discretion of the instructor of Research 246, students who are candidates for graduation with honors or who for any other reason are capable of or willing to undertake a project of greater scope and higher caliber than required for other projects will be expected to have their papers typed and bound. Any such paper will be known as a "thesis," which upon completion must be signed by the candidate's adviser, the Chairman of the Senior Research Committee, and the Dean of the School of Education and Sciences. It becomes the property of the College Library.

Each candidate is required to take the research course at least one quarter preceding the quarter in which he expects to graduate. Thus, students wishing to graduate in the spring must take the course not later than the Winter Quarter; those wishing to graduate in August may wait until the Spring Quarter preceding graduation.

The student is required to finish the research project by the end of the quarter in which he is taking Research 246. If, however, circumstances over which he has no control prevent him from completing the project in that time, it must, never-



theless, be completed on or before May 15 in the case of persons expecting to graduate in the spring. If a candidate for graduation in August is unavoidably prevented from completing his paper while taking the course, he must finish it two weeks before the date of graduation.

### ELECTIVES

In addition to minimum distribution requirements, a major and a minor, required of all, each student is permitted to elect such additional courses as will satisfy the graduation requirements, but in so doing he is urged to exercise the greatest care in order that his choice may add further to the integration and coordination of his program. All such electives must be made with the approval of the student's adviser.

The elective work may be taken in any of the departments indicated above or from any other department of the institution subject to the approval of the Dean of the School of Education and Sciences.

Students are urged to select courses in accordance with a definite plan, and with a definite object in view. Those looking forward to teaching or working in small towns or rural districts especially should bear in mind that the number of trained workers in any given department is likely to be small and the facilities limited. They should therefore use their choice of electives in acquiring knowledge or skills that will be of immediate use to them in such communities. Courses in general agriculture, animal husbandry, commercial industries, industrial arts, foods and clothing may prove to be most beneficial as electives for such students. These are strongly recommended as electives for such teachers and workers.

### REQUIRED COURSES FOR FRESHMEN AND SOPHOMORES

|                                                    | <i>Hours</i> |
|----------------------------------------------------|--------------|
| English 211, 212, 213 .....                        | 15           |
| English 220, 221, 222, or 233 .....                | 5            |
| Foreign language (one language) .....              | 10-15        |
| Mathematics 311, 312 .....                         | 10           |
| History 211, or 212, 213; 221 or 222 .....         | 15           |
| Chemistry 11, 112, or Physics 321, 322 .....       | 10           |
| Biological Science (Botany 111, Zoology 111) ..... | 10           |
| Music or Art Appreciation .....                    | 6            |



|                                                               |      |
|---------------------------------------------------------------|------|
| Military Science 211, 212, 213, 221, 222, 223 (for men) ..... | 12   |
| Physical Education, six quarters .....                        | 6- 9 |
| Orientation (Ed. 211) .....                                   | 1    |
| Vocations .....                                               | 6    |

### SAMPLE SCHEDULE

The following are typical examples of how normal schedules might be arranged. Others more in accord with the student's interest and aptitude might be selected:

#### Freshmen

|                                       | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------|-------------|---------------|---------------|
| Eng. 211, 212, 213 .....              | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Math. 311, 312 .....                  | 5(5-0)      | 5(5-0)        | .....         |
| French or Spanish 211, 212, 213 ..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Ed. 211 .....                         | 1(0-2)      | .....         | .....         |
| Mil. Sci. 211, 212, 213 .....         | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| or                                    |             |               |               |
| Physical Education .....              | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Mus. 211, 212, 213 .....              | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| or                                    |             |               |               |
| Art 314, 315, 316 .....               | 2(0-2)      | 2(0-2)        | 2(0-2)        |
| Vocations .....                       | 3(0-6)      | 3(0-6)        | 3(0-6)        |
|                                       | <hr/>       | <hr/>         | <hr/>         |
|                                       | 19          | 19            | 19            |

#### Sophomores

|                                  | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------|-------------|---------------|---------------|
| Eng. 222, 223, 220, or 221 ..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Chem. 111, 112                   |             |               |               |
| or                               |             |               |               |
| Phy. 321, 322 .....              | 5(3-4)      | 5(3-4)        | .....         |
| Bot. 111 .....                   | 5(3-4)      | .....         | .....         |
| Zool. 111 .....                  | .....       | 5(3-4)        | .....         |
| Math. 313 .....                  | .....       | .....         | 5(5-0)        |
| Mil. Sci. 221, 222, 223 .....    | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| or                               |             |               |               |
| Physical Education .....         | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Mus. 221, 222, 223               |             |               |               |
| or                               |             |               |               |
| Art 327, 328, 329 .....          | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Social Science .....             | .....       | 5(5-0)        | 5(5-0)        |
| Educ. 221 .....                  | .....       | .....         | 5(5-0)        |
| French or Spanish .....          | 5(5-0)      | .....         | .....         |
|                                  | <hr/>       | <hr/>         | <hr/>         |
|                                  | 19          | 19            | 19            |

## COURSES PRELIMINARY TO ADMISSION TO MEDICAL COLLEGE

This institution has been rated as class "A" by the American Medical Association as to qualifications for giving pre-medical training. Students completing the prescribed course may therefore be admitted to the medical colleges of this country without examination.

All students planning for the study of medicine are urged, however, to complete the four-year course and receive their degree before entering a medical school.

### Pre-Medical Course

Students are advised to select subjects in college which assure a broad background for later medical study rather than merely confirming themselves to courses and fields required in the medical curriculum. Electives should include psychology, political science, history, economics, sociology, and mathematics.

The following represent the minimum requirements in general for admission to class "A" Medical schools:

|                                                       | <i>Quarter Hours</i> |
|-------------------------------------------------------|----------------------|
| *Chemistry (inorganic) .....                          | 15                   |
| Chemistry (organic) .....                             | 9                    |
| Physics .....                                         | 15                   |
| Biology .....                                         | 12                   |
| English (composition and literature) .....            | 13                   |
| A modern foreign language (a reading knowledge) ..... | 12                   |
| Electives .....                                       | 10-18                |

Most medical colleges recommend at least one year of college mathematics.

### Advanced Standing

Students who transfer from accredited colleges will be given credit for previous work done, upon presentation of records to the proper authorities, who will evaluate them.

---

\* Pre-medical students and majors or minors in Chemistry should register for Chemistry 111, 112, and 113 in successive quarters.

### **Opportunities for Women**

All courses in the College are open to women on the same basis as men. There is a great demand for well-trained women not only as teachers but in practically all fields of endeavor. Accordingly, women registering in the teacher training division may, with approval of their advisers, select courses in any other division or department of the institution.

The aim of this division is to give the women as well as the men who plan to teach every opportunity to take full advantage of all the facilities of the College in developing the best and most comprehensive training possible.

## **THE GRADUATE DIVISION**

**W. L. KENNEDY, Chairman**

---

### **General Statement**

The Agricultural and Technical College of North Carolina offers to qualified students the opportunity to pursue advanced courses and to undertake research in agriculture, technical and applied sciences. All the technical and scientific departments give courses and direct research leading to the various Master of Science degrees.

The object of graduate study differs somewhat from that of undergraduate study. While extending the range of the student's knowledge still further, the constant aim is to develop initiative, judgment, and the power of independent thought.

The work of the Graduate Division is under the general control of the Graduate Committee. The Chairman of the Graduate Committee is charged with general supervision of all graduate students and is the medium of communication between such students and the college administration. The faculty consists of such members of the instructional staff as have immediate supervision of graduate courses.

### **Admission**

Admission to the Graduate School may be granted to graduates of institutions whose requirements for the baccalaureate degree are substantially equivalent to those of The Agricultural and Technical College of North Carolina.

Admission is granted by the College Registrar. If the applicant has attended more than one institution, an official transcript of the work covered at each institution is required. This applies to the complete academic record, both undergraduate and graduate. Official credentials should be sent directly from institutions to the Registrar. Failure to give attention to this important point in advance will lead to delay in registration.

Prospective students may make inquiries at any time regarding the possibilities of graduate study. Questions concerning admission should be addressed to the College Registrar.

trar. Blanks to be used in making applications for admission are obtained from the Registrar. General inquiries regarding graduate work may be addressed to the Chairman of the Graduate School. Students should not hesitate to write directly to a department head if they have specific questions regarding the work of a department.

### **Registration**

All students must registrar at the beginning of each quarter or summer term. The registration days are indicated in the college calendar. Graduate students are allowed three days for registration following the regular registration days before the late fee of \$3.00 is imposed.

A graduate student must prepare each quarter a program satisfactory to his major professor and approved by the Chairman of the Graduate Committee. The student will then go to the office to pay the fees that are due.

### **The Responsibility of Graduate Students**

The responsibility of course enrollment rests entirely upon the student. He should read the regulations carefully, and should follow them in all matters.

Members of the faculty are always ready to advise the student, and assist in planning his study program, but they are not responsible for enforcing the regulations of the Graduate School.

Credits secured in any way which does not comply with the regulations of the Graduate School will not be accepted to meet the requirements for a degree.

### **Changes In Study-Lists**

A graduate student is expected to plan his work so carefully that changes in his study-list during the Quarter will not be necessary. When a change is advisable, however, it may be permitted without fee if made within one week of the date of the registration. After that date a fee of one dollar is charged for each change.

### **Requirements for Master's Degree**

Candidates for the degree of Master of Science are required to do at least one year's work in residence. If the work is done during the summer session, a minimum of five six-weeks sessions of study and residence is required. A minimum of forty-five quarter hours or thirty semester hours and a thesis will be required. Three quarter hours credit will be given for the thesis.

The graduate student will be required to meet a program of study leading to a definite objective. The mere completion of a stated amount of work does not entitle a candidate to be recommended for a degree. He must pass examinations upon such subjects and at such times as shall be designated by the department concerned.

### **Thesis**

Thesis based upon research in the major department is required of every candidate. The thesis must demonstrate the candidate's ability to do independent study and must be acceptable in literary style and composition. A thesis offered in partial fulfillment of the requirement for a Master's degree must be typewritten and bound according to specifications furnished by the Graduate School, and before it is accepted, it must be approved by the major professor under whose guidance the research has been done.

The candidate is required to pass an examination upon his or her Thesis. The thesis must be turned over to the Chairman of the Graduate School at least two weeks before the examination can be held. Should the candidate fail to pass the examination, he or she will be required to spend an additional quarter in residence. Two copies of the thesis as approved by the major professor must be deposited in the College Library two weeks before graduation and its title, as approved by the major professor, will appear on the official commencement program.

### **Scholarship**

A minimum average grade of "B" must be maintained by the candidate. No credit will be given for grades below "C." Should a candidate receive two grades below "C," the student



will be asked to discontinue his graduate work. A graduate student who fails in any course in his major subject cannot secure his degree in the same year in which the failure occurs. No conditional examination is given graduate students.

As designated under Description of Courses, the courses numbered 600-699 are for graduate students only. Courses numbered 500-599 are for graduates and advanced undergraduates.

### **Period of Registration for Degree**

It is desirable that graduate students complete the work for the Master's degree within a reasonable time. A candidate who does not complete this work within a period of six years from registration will be required to start anew to meet the requirements for the degree.

### **Candidacy for Master's Degree**

Admission to the Graduate School does not imply admission to candidacy for a degree. After a student has earned 15 quarter hours and before he has earned 21 quarter hours, he must appear before the committee to determine his fitness for an advanced degree.

### **Advisers**

The Chairman of the Graduate School appoints for each applicant for a degree an adviser.

The adviser shall be the professor in charge of the major subject who will direct the research for the thesis.

The student should secure the written approval of the adviser on all matters before asking for the approval of the Chairman of the Graduate Committee.

### **College Scholarships**

A limited number of scholarships have been provided by the college. The Scholarships are open to students having a baccalaureate degree from an approved institution and have a value of \$270, with exemptions from all fees except the matriculation and student activity fee.

### Fees

The graduate student will pay five dollars when he matriculates and three dollars for each credit hour for all courses. A full time graduate student may elect to pay the same fee as an undergraduate.

### Certification Regulations

The North Carolina State Department of Public Instruction has issued the following requirements to be followed by those desiring a Master's degree and also a state graduate teaching certificate: These include two major groups (1) Teachers and (2) Principals and Supervisors.

#### REQUIREMENTS FOR GRADUATE SECONDARY AND GRADUATE ELEMENTARY CERTIFICATES, EFFECTIVE AS OF JULY 1, 1941

##### I. Graduate Secondary Certificates:

- A. Hold or be qualified to hold the Class A high school teachers' certificate.
- B. Have three or more years' training experience.
- C. Have a Master's degree from an institution of higher learning with recognized graduate standards approved by the State Department of Public Instruction. This would include:
  1. Subject matter in the certificate fields .....12 S.H.
  2. Education (philosophy, principles, curriculum, psychology, etc.) ..... 6 S.H.
  3. Electives .....12 S.H.

##### II. Graduate Elementary Certificate:

- A. Hold or be qualified to hold the Class A primary or grammar grade certificate.
- B. Have three or more years' teaching experience.
- C. Have a Master's degree from an institution of higher learning with recognized graduate standards approved by the State Department of Public Instruction. This credit would include:
  1. Academic work ..... 6-12 S.H.  
This should include subject matter in those fields in which there are manifest weaknesses in the equipment of the individual, as well as subject matter that would strengthen points already strong.
  2. Education (philosophy, principles, curriculum psychology, etc.) ..... 6 S.H.
  3. Electives .....12-18 S.H.

### REQUIREMENTS FOR PRINCIPAL'S CERTIFICATES, EFFECTIVE AS OF JULY 1, 1943

- A. Hold or be qualified to hold the Class A teacher's certificate (secondary or elementary).
- B. Have three years' teaching experience within the past five years.
- C. Hold a Master's degree from an institution of higher learning with recognized graduate standards approved by the State Department of Public Instruction.
- D. Have credit for a minimum of 12 semester hours (18 recommended) of graduate work in Education selected from the following areas:
  - 1. Fundamental Bases of Education
    - a. The Curriculum, at least 2 semester hours required
    - b. Human Growth and Development
    - c. Social Foundations of Education
  - 2. Instructional and Supervisory Techniques
    - a. Principles of Supervision, at least 2 semester hours required
    - b. Teaching Procedures
    - c. Guidance and Pupil Personnel and Accounting
    - d. Measurements
  - 3. Organizations and Administration
    - a. High School Administration, at least 2 semester hours required
    - b. Elementary School Administration, at least 2 semester hours required
    - c. General Administration
    - d. School Plant
    - e. Staff Personnel
    - f. Community Relations
- E. Electives .....12-18 semester hours  
This elective credit may be of the candidate's choice, subject to such requirements as the institution may have for the Master's degree, but it should be designed primarily to add to one's equipment as a teacher.

### PROGRAM IN RURAL EDUCATION AND SOCIAL SCIENCE FOR TEACHERS AND PRINCIPALS

- A. For teaching certificates
  - 1. Required courses
 

|                                            |        |
|--------------------------------------------|--------|
| Ed. 601 American Public Education          | 3 Q.H. |
| or Educational Sociology .....             | 3 Q.H. |
| Ed. 622. Measurements and Evaluation ..... | 3 Q.H. |
| Ed. 612. Techniques of Research.....       | 3 Q.H. |

|                                                       |           |
|-------------------------------------------------------|-----------|
| Guid. 601. Field of Guidance .....                    | 3 Q.H.    |
| Ed. 621. Educational Psychology .....                 | 3 Q.H.    |
| Ed. 605. Teaching .....                               | 3 Q.H.    |
| Ed. 606. Curriculum .....                             | 3 Q.H.    |
| 2. Subject-Matter courses according to certificate .. | 9-15 Q.H. |
| 3. Electives and Thesis .....                         | 9-18 Q.H. |

#### B. For Principals and Supervisors

|                                                                             |        |
|-----------------------------------------------------------------------------|--------|
| 1. Required courses                                                         |        |
| Ed. 601 American Public Education<br>or Ed. 623 Educational Sociology ..... | 3 Q.H. |
| Ed. 622. Measurements and Evaluation .....                                  | 3 Q.H. |
| Ed. 612. Techniques of Research .....                                       | 3 Q.H. |
| Ed. 605. Teaching .....                                                     | 3 Q.H. |
| Ed. 606. Curriculum .....                                                   | 3 Q.H. |
| Ed. 609. School Planning .....                                              | 3 Q.H. |
| Ed. 626. H.S. Administration .....                                          | 3 Q.H. |
| Ed. 627. H.S. Supervision .....                                             | 3 Q.H. |
| Ed. 624. Elem. Sch. Administration .....                                    | 3 Q.H. |
| Ed. 625. Elem. Sch. Supervision .....                                       | 3 Q.H. |
| Guid. 601. Field of Guidance.....                                           | 3 Q.H. |
| Social Science .....                                                        | 3 Q.H. |
| 2. Electives and Thesis .....                                               | 9 Q.H. |

Programs in certain other graduate departments will be outlined, on request, by the Major Professor of the department and the Chairman of the Graduate Committee.

### INDEX TO GRADUATE COURSES

|                                          |        |
|------------------------------------------|--------|
| Agricultural Economics .....             | 81- 82 |
| Agricultural Education .....             | 84- 85 |
| Agronomy .....                           | 72     |
| Animal Husbandry .....                   | 74     |
| Biology .....                            | 91     |
| Chemistry .....                          | 98     |
| Economics .....                          | 162    |
| Industrial and Vocational Education..... | 130    |
| Mathematics .....                        | 134    |
| Physics .....                            | 154    |
| Poultry Science .....                    | 76     |
| Sociology .....                          | 161    |
| Rural Sociology .....                    | 82- 83 |

(See also Graduate Bulletin)

# DESCRIPTION OF COURSES

## AGRICULTURAL SCIENCES

### AGRONOMY

The Major in Agronomy is for those students who desire to go into the practical phases of agriculture dealing specifically with soils and crops. The major will prepare those students who are interested in entering Farm Security Work, Soil Conservation or Civil Work in Soil Science. The ground work is also laid for advanced study in several phases of soil technology.

The work for the student majoring in Agronomy will differ from that set up in the Uniform Curriculum for Agriculture in that Zoology or Botany will not be required until the Sophomore year.

All Freshmen or transfer students who plan to register for a major in Agronomy must first secure the approval of the Dean of the Department of Agriculture and the instructor in charge of the work.

#### Junior Year

|                                | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------|-------------|---------------|---------------|
| Agronomy 141 .....             | 3(2-2)      | .....         | .....         |
| Zoology 111 or Botany 111..... | .....       | .....         | 5(3-4)        |
| Chemistry 121 .....            | 5(3-4)      | .....         | .....         |
| Economics 143, 142.....        | 5(5-0)      | .....         | 5(5-0)        |
| Dairy 145 .....                | .....       | .....         | 4(2-4)        |
| Agronomy 143, 501, 131.....    | 3(2-2)      | 3(2-2)        | 3(2-2)        |
| Rural Engineering 120.....     | 3(0-6)      | .....         | .....         |
| Electives .....                | .....       | 6( )          | .....         |

#### Senior Year

|                                                    | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------------|-------------|---------------|---------------|
| Horticulture 123 .....                             | .....       | .....         | 3(2-2)        |
| English 224 .....                                  | .....       | 3(2-0)        | .....         |
| Agronomy 503 .....                                 | .....       | .....         | 4(2-4)        |
| Agronomy 140, 144.....                             | 4(2-4)      | .....         | 3(0-6)        |
| Animal Husbandry 141.....                          | 3(2-2)      | .....         | .....         |
| Animal Husbandry 131.....                          | 3(2-2)      | .....         | .....         |
| Botany 123 .....                                   | 3(2-2)      | .....         | .....         |
| Rural Sociology 501 .....                          | .....       | 3(3-0)        | .....         |
| Rural Engineering 119 or<br>Horticulture 145 ..... | .....       | 3(1-4)        | .....         |
| Economics 501, 505 .....                           | .....       | 3(1-4)        | 3(3-0)        |
| Horticulture 131, Electives .....                  | 3(2-2)      | 3( )          | ( )           |

Approved Electives for the Major in Agronomy. Other electives may be taken with the approval of the instructor in Agronomy.

**Fall**

English 231  
Typewriting 317  
Sociology 231

Geology 131  
Agronomy 132

**Winter**

Rural Sociology 502  
Economics 504  
Geology 240  
Agronomy 133,

504, 523  
M. E. 317  
I. A. 325

**Spring**

Botany 121  
Sociology 233  
Rural Sociology 503

I. A. 326  
Agronomy 533

**COURSES IN AGRONOMY****For Undergraduates**

- 122. Nature and Properties of Soils.** The course deals with the origin, formation and classification of soils and their chemical relationships, also the chemical, physical and biological properties, with reference to composition and plant relations of soils. Winter. Prerequisite: Chem. 113. Credit 3(2-2).
- 123. Soil Management.** This is a continuation of Agronomy 122, and it deals with the methods of soil utilization, including the methods of fertilization of soils, the mixing and applying commercial plant foods, the use of green manure, stable manure, lime and the influence of crop rotation and fertilizer on the soils as shown by field tests and experiments. Prerequisite: 122. Spring. Credit 3(2-2).
- 131. Farm Crops.** This course consists of a study of the main field and forage crops in North Carolina. It includes lectures and recitations together with appropriate laboratory exercises on these crops. Attention is paid in detail to the following phases of the subject: history, production, culture, harvesting, uses, State-approved varieties. Prerequisite: 122. Spring. Credit 3(2-2).
- 132. Forage Crops.** This course supplements the course Agronomy 131 for Agronomy majors and special students. It covers in a very detailed manner the major forage crops adapted to North Carolina. Some phases of the field covered are crops adapted to the State, selection of forage crops, selection and preparation of land for forage crops, emergency forage production, making and curing hay, making and preserving silage, production and management of pastures. Laboratory work includes identification of



forage crop seeds and forage crop materials in both the growing and cured stages. Prerequisite: 122. Fall. Credit 3(2-2).

**133. Field Crops.** This course supplements the course, Agronomy 131 for Agronomy majors and special students. It consists of a study of the major field crops of North Carolina excepting cotton and tobacco. It covers the following aspects of the field: history, varieties and adaptation of crops, selection of land and fertilizers, cultural practices in production place in the rotation and soil conservation plan. Laboratory will consist of identification of seed or field crops, study of seed quality, seed judging and identification of field crops by vegetative and fruiting parts. Prerequisite: 122. Winter. Credit 3(2-2).

**140. Soil Conservation.** This course is a study of the nature, causes, occurrences and importance from an economic standpoint, of soil erosion. Attention is given to the several phases of soil conservation as counter checks against erosion, farm planning, land use planning, reforestation, terracing, strip cropping, contour farming and crop adaptations. Field trips will be arranged for study and practice on actual problem cases. A fee may be charged at the discretion of the instructor, to pay for transportation. Prerequisite: 122, 123, 131. Fall. Credit 4(2-4).

**141. Tobacco.** This course includes lectures, recitations and laboratory on the history, production, adaptation, type, varieties, cultivation, harvesting, grading, marketing, diseases and control measures, based on conditions in North Carolina. Prerequisites: 122, 123. Fall. Credit 3(2-2).

**143. Cotton.** This course includes lectures and recitations on the history, origin, production, adaptation, varieties, cultivation, harvesting and grading with some reference to marketing diseases and control measures, rotation and the upkeep of soil fertility under long time cropping systems. Prerequisites: 122, 123. Fall. Credit 3(2-2).

**144. Farm Experiences.** This course will provide the student with practical participating farm experiences on the College Farm until he can demonstrate reasonable skills in the more commonly met farm activities as: care of workstock, harnessing workstock, care and repair of harness, repair of farm machinery, operation of farm tools and machinery including the tractor, laying out fields and use of various tools in common cultivation activities. All Agronomy majors must register for the course and demonstrate efficiency to the satisfaction of the Farm Superintendent, who will be in charge of the work. All or any part of this work may be waived at the decision of the Farm Superintendent. Prerequisites: 122, 123, 131. Spring. Credit 3(0-6).

### Graduates and Advanced Undergraduates

- 501. Soil Development and Classification.** A course dealing with the influence of soil-forming agencies on soil characteristics. Prerequisite: 123. Winter. Credit 3(2-2).
- 502. Crop Problems.** For students wishing to study special problems in crops that are not considered as original research. Prerequisites depend on problem assigned. Senior standing. Credit and quarter to be arranged.
- 503. Soil Survey.** The making of detailed soil maps and the writing of soil survey reports. Prerequisite: 123. Spring. Credit 4(2-4).
- 504. Fertilizers.** A study of the sources, manufacture, characteristics, and utilization of fertilizers; calculation of formulas. Prerequisites: 123, 131. Winter. Credit 3(2-2).
- 521. Soil Problems.** For students wishing to study special problems in soils that are not considered as original research. Prerequisites depend on problem assigned. Senior standing. Credit and quarter to be arranged.
- 522. Seed Certification Problems.** A study of standards of quality in field crops for certification. Prerequisite: 131. Credit 3(2-2).
- 523. Seed Judging.** Advanced study of quality in crop seeds and standards for seed certification. Arranging and judging of crop exhibits. Prerequisite: 131. Fall. Credit 3(1-4).
- 531. The Soils of North Carolina.** The origin, characteristics, plant adaptation, and fertilizer needs of North Carolina soil types. Prerequisite: 122. Credit 3(2-2). Quarter by arrangement.
- 533. Legumes and Grasses.** Advanced study of legumes and grasses as to their adaptation and uses. Emphasis is placed on their economic use in crop and livestock farming. Prerequisite: 122. Spring. Credit 3(2-2).
- 534. Crop Breeding.** Principles of plant breeding reviewed and applied to the principal North Carolina field crops; hybridization, and breeding for special qualities. Prerequisites: 131, 132, 133. Credit 3(2-2). Quarter by arrangement.

### Graduates Only

- 601. Research in Crops.** Special problems chosen by the student or assigned by the instructor. Credit and quarter to be arranged.
- 602. Research in Soils.** Special problems chosen by the student or assigned by the instructor. Credit and quarter to be arranged.

**MAJOR IN ANIMAL HUSBANDRY****Junior Year**

|                         | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------|-------------|---------------|---------------|
| An. Husb. 131, 132..... | 5(3-4)      | 3(2-2)        | 3(2-2)        |
| Elective .....          |             | 6( )          |               |
| Dairy 132, 146 .....    | 5(3-4)      | 4(2-4)        |               |
| Agron. 131, 141.....    | 3(2-2)      |               |               |
| Bact. 123 .....         |             |               |               |
| Econ. 231, 142.....     | 5(5-0)      |               | 5(5-0)        |
| Botany 121 .....        |             |               | 3(2-2)        |

**Senior Year**

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| An. Husb. 134.....       | 3(3-0)      |               |               |
| Zool. 134 .....          | 3(3-0)      |               |               |
| An. Husb. 141.....       | 3(2-2)      |               |               |
| *Electives .....         |             |               | 9( )          |
| Hort. 133 .....          |             | 4(2-4)        |               |
| Econ. 232 .....          |             | 5(5-0)        |               |
| Poultry 133 .....        |             | 3(2-2)        |               |
| Botany 123 .....         | 3(2-2)      |               |               |
| Econ. 143 .....          | 5(5-0)      |               |               |
| Rural Eng. 141, 142..... |             | 3(2-2)        | 3(0-6)        |
| Special Problems .....   |             |               | 3(0-6)        |

Electives for animal husbandry majors: business administration 335, 339 and as indicated for agricultural students.

**COURSES IN ANIMAL HUSBANDRY****For Undergraduates**

**121. Principles of Dairying.** This course takes up secretion, composition, testing and separation of milk; the farm manufacture of cheese, butter and ice cream. Credit 5(3-4).

**122. Farm Animals.** A study of general farm animals. Special attention is given to sheep, horses, mules and beef cattle. The different breeds of the animals named as well as their care and management will be considered. Winter. Credit 3(2-2).

**131. Diseases of Farm Animals.** This course deals in a general way with the following phases of animal diseases: causes, prevention, treatment, manner of spread, disinfectants and their application, general hygiene, stable sanitation and the location of site including drainage will be given. Prerequisite: 122. Fall. Credit 3(2-2).

- 132. Animal Nutrition.** This is a study of the general principles of nutrition as applied to livestock, composition of feed stuffs, comparisons of feeding standards, calculating rations, methods of feeding for economical production. Prerequisite: 122. Fall. Credit 5(3-4).
- 133. Animal Breeding.** A study of the principles of genetics as applied to the improvement of farm animals, and some of the methods and problems of the breeder. Prerequisites: 122, 131. Credit 3(3-0).
- 134. Feeding of Dairy Cattle.** A study of special problems pertaining to the feeding of dairy cattle; feeding for high market production; practices in balancing rations. Prerequisite: 132. Credit 5(4-2).
- 141. Swine Production.** A study of practical hog raising stressing such points as breeds, breeding, selecting breeding stock; feeding, diseases, insects, pest and sanitation. Prerequisites: 122, 131. Fall. Credit 3(2-2).
- 145. Practical Dairying.** A study of dairy barn construction, barn sanitation and disinfectant, dairy bacteriology and the methods of sterilization, standardization and pasteurization of milk and cream; making artificial buttermilk, cottage cheese and cream cheese; preparing and marketing of milk, cream and other milk products. Prerequisite: 122. Spring. Credit 4(2-4).
- 146. Dairy Herd Management.** A course in feeding and management of the dairy herd. It includes a study of pedigrees, handling test cows, advanced registration, fitting cows for show and for sale. Credit 4(2-4).

### Graduates and Advanced Undergraduates

- 502. Farm Meats.** The course includes killing, dressing, cutting, curing and smoking, sausage making and meat inspection. Trips will be made to the City Abattoir to supplement work done at the college. Prerequisite: 122. Fall. Credit 3(1-4).
- 504. Ice Cream Making (formerly Dairy 132).** A study of the manufacturing of ice cream, sherbets and ices on a private or commercial scale, marketing and scoring and judging. Prerequisite: 122. Spring. Credit 5(3-4).
- 512. Marketing Livestock.** Developments and markets including the packing industry, methods of marketing and factors affecting receipts and prices of market animals. Credit 3(2-2).
- 513. Advanced Livestock Judging.** Advanced judging of horses, cattle, sheep and swine; history, purposes and organization of

breeding associations; use of herd books; tabulations and a study of pedigrees; the work and methods of constructive breeders. Credit 3(2-2).

**514. Anatomy and Physiology of Domestic Animals.** A study of viscera, general physiology and pathology. Credit 3(2-2).

**515. Dairy Bacteriology.** The significance and classification of bacteria in milk and milk products and laws relating thereto; equipment and methods used in laboratories. Interpretation of bacterial counts and milk and its products. Prerequisite: Bact. 121. Fall. Credit 3(2-2).

**521. Problems in Dairy Technicology.** Technical problems relating to the manufacture of dairy products; methods of experimentation. Credit 3(2-2).

**522. Advanced Animal Nutrition.** The principles and facts of the science of animal nutrition and economic feeding practices, with special attention to recent discoveries pertaining to quality in the protein, mineral requirements and the vitamins. Credit 3(2-2).

**526. City Milk Supply.** The phases of the City Milk Supply from the standpoint of the Milk Inspector and the Board of Health; the methods and processes used in a central pasteurizing milk distribution plant and the dairymen supplying milk to same; the raw retail milk distributor and his problems. Prerequisite: 505. Winter. Credit 3(2-2).

### For Graduates Only

**601. Research Studies in Animal Husbandry.** An intensive study and experimental data. Time and credit to be arranged.

**602. Special Problems in Dairy Husbandry.** Available for graduate students interested in such special dairy problems under definite supervision and approval. Time and credit to be arranged.

**603. Seminar.** Members of the Seminar will be assigned subjects which will be reviewed and discussed. Review of literature, scientific reports and experimental station bulletins. Oral and written reports. Time and credit to be arranged.

## MAJOR IN POULTRY

### Junior

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| An. Husb. 132 .....      | 3(2-2)      | .....         | .....         |
| Electives .....          | .....       | 6( )          | .....         |
| Dairy 134, 145, 146..... | 5(4-2)      | 4(2-4)        | 4(2-4)        |
| Agronomy 131 .....       | 3(2-2)      | .....         | .....         |
| Bacteriology 123 .....   | .....       | .....         | 5(3-4)        |



|                         |        |       |        |
|-------------------------|--------|-------|--------|
| Economics 231, 142..... | 5(5-0) | ..... | 5(5-0) |
| Botany, 121 .....       | .....  | ..... | 3(2-2) |
| Math. 316 .....         | 3(3-0) | ..... | .....  |

**Senior**

|                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------|-------------|---------------|---------------|
| Poultry 501, 505 .....     | 3(2-2)      | 3(2-2)        | .....         |
| Zoology 134 .....          | 3(3-0)      | .....         | .....         |
| Electives .....            | .....       | .....         | 6( )          |
| Hort. 123 .....            | .....       | 4(2-4)        | .....         |
| Economics 232 .....        | .....       | 5(5-0)        | .....         |
| Poultry 531 .....          | .....       | .....         | 3(2-2)        |
| Botany 123 .....           | 3(2-2)      | .....         | .....         |
| Economics 143 .....        | 5(5-0)      | .....         | .....         |
| Rural Eng. 141, 142.....   | .....       | 3(2-2)        | 3(0-6)        |
| Poultry 502, 503, 504..... | 3(2-2)      | 3(2-2)        | 3(2-2)        |

**COURSES IN POULTRY SCIENCE****For Undergraduates**

**111. General Poultry Problems.** A general introductory course that is very practical for those who plan to raise or teach poultry. It stresses such phases of the industry as plant location, selection of site, plant equipment, foods and feeding, flock care, culling, sanitation, insects and diseases: Fall. Credit 3(2-2).

**122. Operation of the Poultry Plant.** Attention will be paid to such factors in economy as the selection and equipment, use of equipment, making simple equipment, cost of equipment, feeding systems, compounding rations, utilizing home grown products in the rations with practical cost study problems. Winter. Credit 3(2-2).

**122. Incubation and Brooding.** The embryology of the chick, then a more detailed study of the theory and actual practice of incubator operation, studies in the construction and operation of different types of incubators and brooder stoves. The chick, its care and management through the first four weeks. Prerequisite: 112. Winter. Credit 3(2-2).

**For Graduates and Advanced Undergraduates**

**501. Marketing Poultry Products (formerly Poul. 133).** A study of the theory and practice in classifying, handling, grading and preserving eggs; fattening chickens, handling and dressing. The baby chick business in market. Prerequisite: 112. Winter. Credit 3(2-2).



- 502. Poultry Problems (formerly Poul. 134).** Poultry disease problems, nutritional problems, judging problems. Prerequisite: 112. Time and credit to be arranged.
- 503. Selection and Mating of Poultry.** Methods of recognition and selection for purpose of mating from both standard and utility standpoints. Study of progeny performance. Prerequisites: 112 and Zool. 134. Credit 3(2-2).
- 504. Poultry Nutrition (formerly Poul. 131).** Feeds and feeding; physiology of digestion, absorption and elimination; mineral and vitamin requirements. Fall. Credit 3(2-2).
- 505. Poultry Judging.** Class and practice work in standard and utility judging of fowls. Selection preparation, breeds for showing. Winter. Credit 3(2-2).
- 521. Poultry Diseases (formerly Poul. 130).** Sanitation, parasite infestation and control, contagious and non-contagious diseases of the fowl. Winter. Credit 3(1-4).
- 522. Poultry Anatomy.** A study of normal structure of the fowl, including osteology, arthrology, myology, splanchnology, angrology, enurology and oesthesiology. Prerequisite: 502. Spring. Credit 3(2-2).
- 531. Commercial Poultry Plant Management.** A study of poultry farm organization and management; hatchery management; the economics of the poultry industry and factors influencing profit in poultry enterprises. Prerequisite: 112. Spring. Credit 3(2-2).

### Graduates Only

- 601. Production Studies and Experiments.** Problems in poultry nutrition, breeding and commercial poultry production and marketing. Time and credit to be arranged.
- 602. Poultry Research.** Problems chosen or assigned. Time and credit to be arranged.
- 603. Seminar.** Problems vital to the poultry industry will be discussed by the students and members of the staff. Time and credit to be arranged.

## MAJOR IN ORNAMENTAL HORTICULTURE

### Junior

|                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------|-------------|---------------|---------------|
| Econ. 143, 142.....    | 5(5-0)      | .....         | 5(5-0)        |
| Agr. 131 .....         | 3(2-2)      | .....         | .....         |
| Bot. 121 .....         | .....       | .....         | 3(2-2)        |
| Art 311, 312, 313..... | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| R. Eng. 112.....       | 3(1-4)      | .....         | .....         |

|                     |        |        |        |
|---------------------|--------|--------|--------|
| Hort. 131, 133..... | 3(1-4) | .....  | 3(2-4) |
| Bus. 232 .....      | .....  | 5(5-0) | .....  |
| Elective .....      | 3( )   | 3( )   | 3( )   |
| Elective .....      | .....  | 3( )   | .....  |

#### Senior

|                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------|-------------|---------------|---------------|
| Bus. 237 .....             | 5(5-0)      | .....         | .....         |
| Bot. 123 .....             | 4(2-4)      | .....         | .....         |
| Hort. 141, 142, 143.....   | 3(1-4)      | 3(1-4)        | 3(1-4)        |
| Hort. 144, 145, 146.....   | 3(2-2)      | 3(1-4)        | 4(1-6)        |
| R. Eng. 141, 142, 143..... | 3(2-2)      | 3(2-2)        | 3(0-6)        |
| Electives .....            | .....       | 6( )          | .....         |

### COURSES IN HORTICULTURE

**111. The Elements of Horticulture.** An elementary course in general horticulture dealing with fruit, vegetables, flower growing, and practical landscape problems of small properties. This course will enable the beginning student to get an appreciation as well as the principles of the science of horticulture. Two lecture periods and one laboratory period. Fall, Winter, and Spring. Credit 3(2-2).

**112. Flower Arrangement.** This course is designed to teach the student the use of flowers and plant materials in the home, store, school and office decoration. Lecture period each week. Credit 3(1-4).

**113. Vegetable Growing.** This is a study of the general principles involved in vegetable growing. The student will be given an opportunity to carry out some of the principles taught through practical work in assigned plots of which he will have full charge. He will be required to plan, plant and cultivate the assigned plot. Spring. Credit 4(2-4).

**122. Plant Growing.** This is a study of the general principles involved in fruit growing. Consideration will be given to the establishment of commercial orchard establishments. The course will be comprised of a study of locations, sites, soils, fruit varieties, pruning and spraying, and the general practices involved in general orchard management. The importance of the home orchard will also be emphasized. Fall. Credit 3(2-2).

**123. Flower Growing.** This is a study of the general principles involved in amateur flower growing. The course will be comprised of a study of annuals, biennials, perennials, bulbs, roses, and shrubs that are valuable for the home flower garden. Practical

experience will be given in planning, planting, and caring for an assigned flower bed. Prerequisite: Hort. 133. Spring. Credit 3(2-2).

**124. Flower Growing.** This course is designed to further the student's knowledge in specialized flower growing. Attention will be given to detailed development of the private area. Prerequisite: 123. Fall. Credit 3(2-2).

**131. Plant Materials and Propagation.** This course will include the identification of trees, shrubs and vines of North Carolina. The laboratory work will be done largely in the field. The use of these materials in simple landscaping will be stressed. Methods of grafting, budding, seeding, and the making of cuttings will be practiced during the laboratory periods. Fall. Credit 3(2-4).

**133, 134. Landscape Architecture.** This course gives a general survey of the principles of the art of beautifying the home and farm grounds as well as the community and public buildings. Laboratory work will consist of practical work in landscaping projects about the campus and community. Landscaping as a commercial enterprise will be emphasized. Spring. Credit 4(2-4) each quarter.

**141, 142, 143. Greenhouse Management.** This course is designed for such students who desire to enter into commercial enterprises rather than teaching. The course of study will involve the principles of year-round management of a greenhouse establishment, floral arrangement and merchandizing, interior decorations with flowers and plants, soil management, greenhouse heating, ventilation, watering, and general plant culture. Prerequisite: Hort. 123, 131. Fall, Winter and Spring. Credit (each quarter) 3(1-4).

**144. Systematic Horticulture.** The course consists of a study of the characteristics of various varieties of fruits and vegetables in an effort to determine the merits of each variety in its relation to growing conditions and market demands. Fall. Credit 3(2-2).

**145. Horticultural Buildings.** This course consists of the study of the construction of various buildings needed for horticultural enterprises. Hot beds, cold frames, nursery frames, greenhouses, storage houses, packing houses will receive special attention. Winter. Credit 3(1-4).

**146. Special Project.** The student will select some problem after consultation with the instructor and will plan and execute research under supervision. Research reading will be required. The results of the research will be incorporated in a thesis at the end of the quarter. Students in this course must have shown considerable aptitude in all of the other horticultural courses. Quarter to be arranged. Credit 4(1-6).

**COURSES IN RURAL ENGINEERING**

- 111. Agricultural Practice (formerly Rural Engineering 119).** A course to give prospective teachers of agriculture the accepted practical methods to use in starting the school nursery, putting over a community beautification project. This course includes making maps, terracing and the development of the drainage system for the homestead. These activities shall be based on or related to farm shop practice and skills. They will be carried out on the school farm and in rural communities. Fall, Winter, Spring—Where schedule permits. Credit 3(1-4).
- 112. Farm Shop Practice (formerly Rural Engineering 120).** A course given to students who plan to teach Vocational Agriculture. The purpose of this course is to train the student in developing skills in farm practices. The students will be required to furnish their material for personal projects and for practical work. It is required that the student complete this course before his Senior year. Fall, Winter, Spring. Credit 3(0-6).
- 141. Introduction of Methods in Farm-Shop Practice (formerly Rural Engineering 121.)** A course outlined to prepare trainees, through the introduction of methods and skills for a practical farm-shop program in keeping with the National Vocational Acts. Fall Quarter. Credit 3(0-6).
- 142. Equipment, Materials and Methods of Teaching in a Program of Vocational Agriculture (formerly Rural Engineering 122).** A course outlined to prepare trainees to select, use, maintain, and care for equipment, and materials necessary for the development of shop methods and skills, for a practical farm-shop program, in keeping with the National Vocational Acts. Winter Quarter. Credit 3(0-6). Prerequisite: Rural Engineering 141.
- 143. Observation and Directed Farm-Shop Practice Teaching in a Program of Vocational Agriculture (formerly Rural Engineering 123.)** This course is taken simultaneously with practice teaching. Trainees are assigned to various training centers to carry out the practice work in keeping with the National Vocational Acts. Spring Quarter. Credit 3(0-6). Prerequisite: Rural Engineering 141 and 142.

## COURSES IN AGRICULTURAL ECONOMICS AND RURAL SOCIOLOGY

### Agricultural Economics

#### For Undergraduates

- 114. Rural Social Economy.** A general course designed to give the student a basic philosophy of the economics of agriculture and rural life. Fall. Credit 3(3-0).
- 115. Farm Organization and Management.** The purpose of this course is to give the student a basic understanding of the organizational, managerial, and marketing problems involved in the successful operation of the farm business. Prerequisite: Econ. 114. Credit 3(3-0).
- 142. Farm Management.** A study of the factors of production as they relate to the individual farm; systems of farming, their distribution and adaptation; problems of labor, machinery, layout of farms, crop and livestock selection, and rotation systems. Spring. Credit 5(5-0).
- 143. Marketing Farm Products.** A study of the economic principles underlying successful marketing of farm products,, market organizations and control, price-making forces and critical examination of the present system of marketing farm products. Fall. Credit 5(5-0).

#### For Graduates and Advanced Undergraduates

- 501. Farm Records.** Methods and practice of taking and keeping farm inventories, feed records, crop records, simple financial statements, and analysis and the interpretation of results obtained from farm business transactions. Prerequisite: 142. Credit 3(1-4).
- 502. Rural Law.** Classification of farm property; study of farm boundaries, fences, stock law, rents, contracts, deeds, abstracts, mortgages, taxes, and laws governing shipping of farm products. Prerequisite: 142. Credit 3(3-0).
- 503. Advanced Farm Management.** A further study of the principles of farm organization and management as applied to typical regions of North Carolina. Occasional field trips will be made to study successful farms. Prerequisite: 142.
- 504. Farm Cost Accounts.** Construction and interpretation of cost accounts; relation of cost to price. Cost of production studies and the interpretation of results; closing and analyzing a set of farm cost accounts.



- 505. Principles of Cooperation.** A study of the principles underlying cooperative endeavor. Experiences of cooperative associations of farmers are used as illustrative material. Credit 3(3-0).
- 506. Marketing Methods and Problems.** A careful study of the problems and methods involved in marketing of farm products. Suggestions for improvement will be stressed. Credit 3(3-0).
- 507. Agricultural Finance.** Principles involved in financing the production and marketing of agricultural products. Consideration of farm mortgage credit, personal and intermediate credit, and agricultural taxation. Credit 3(3-0).
- 508. Agricultural Statistics.** Statistical methods and their application. Frequency distributions, averages, measurements of variation, their reliability, trend and linear correlation. Classification, tabulation, and graphic representation. Credit 3(3-0).

### For Graduates Only

- 602. Economics of Agricultural Production.** Economic theories applicable to agriculture. The nature and characteristics of the factors of production, the law of variable proportion, the law of diminishing return, and the theory of least cost. Credit 3(3-0).
- 602. Farm Organization and Management.** The extension of the economic principles discussed in Agricultural Economics 503 and the application of these principles to the problems of farm organization and management. Credit 3(3-0).
- 603. Land Economics.** The economic problems of land classification, ownership and acquisition of land, tenancy and land ownership, the functions of the landlord and the tenant, land valuation and specification. Credit 3(3-0).
- 604. Current Problems in Agricultural Economics.** The content of this course will be changed from year to year. Important problems vital to agriculture will be studied as they develop; topics prepared and presented by students and staff members. Credit 3(3-0).
- 605. Research in Agricultural Economics.** A consideration of the research method and procedure now being employed by research workers in the field of Agricultural Economics, with special application to farm management and marketing. Credit 3(3-0).

### Rural Sociology Courses for Undergraduates

- 233. Rural Home Life.** A survey of the home life of Negroes living on farms and in rural communities, including means and methods of improvement, field and observation tours, will be given in this course. Prerequisite: Soc. 231 or consent of instructor. Credit 5(3-4).



### For Advanced Undergraduates and Graduates

- 501. Rural Social Problems.** This course will explore the development and functioning of basic rural social institutions, cultural backgrounds, standards and methods as related to cooperative effort and social change. Prerequisite: Soc. 231. Credit 3(3-0).
- 502. Rural Leadership.** Specific problems of rural life as selection, development, tasks, obligations and opportunities of rural leadership will constitute the scope of this course. Prerequisite: Soc. 231. Credit 3(3-0).
- 503. Community Organization.** Community organization, with special reference to organization among rural Negroes is studied in this course. Attention is given to proposed programs of improvement. Graduate students will carry a special problem as a supplement to the regular course work. Prerequisite: Consent of instructor. Credit: Undergraduate, 3(3-0); Graduate, 4(3-2).
- 504. Research in Rural Sociology.** Research problems in population, community organization, family life, standards of living, social attitudes, etc., will be investigated by the student in this course. Attention is also given to the methodology of contemporary research in these fields. Prerequisite: Consent of Instructor. Credit 3(3-0).
- 505. Seminar.** The structural characteristics and classification of different types of rural social groups as related to their functions are studied. Prerequisite: Consent of Instructor. Credit 3(3-0).

### AGRICULTURAL EDUCATION AND VOCATIONAL AGRICULTURE

- 141, 144. Materials and Methods of Teaching Vocational Agriculture.** Principles of teaching with application to Vocational Agriculture. The requirements of a teacher; responsibilities; objectives of Vocational Agriculture; School control; student motivation and directed study. Fall Quarter. Credit 3(3-0); 2(0-4). Prerequisites: 231, 237 and 238.
- 142, 145. Materials and Methods of Teaching Vocational Agriculture.** The following topics are considered: Vocational Acts, the Agricultural Curriculum, seasonal sequence of topics, lesson plans, laboratory work, classroom organizing and conducting day-unit and all-day classes based on farm and community needs. Prerequisite: 141 and 144. Winter Quarter. Credit 3(3-0); 2(0-4).
- 143, 146. Observation and Directed Practice Teaching in Vocational Agriculture.** In these courses students are assigned to training centers where observation and directed teaching will be carried on

during the quarter. The trainees must submit all materials to the Agricultural teacher of the assigned department for his approval. Prerequisite: 142 and 145. Credit 3(0-6); 2(0-4). Spring Quarter.

**148. Extension Service.** A study of the developments of the Agricultural Extension Service in the United States, with special reference to the status of this service among the Negroes in the Southern States; also a study of the rules, regulations and special methods relative to this work in North Carolina. Prerequisite: All work below senior year. Fall. Credit 5(5-0).

**149. Practice in Extension Service.** This course follows Education 148 and gives the trainee an opportunity to practice some of the special methods considered in the previous course. Prerequisite: Ext. Ed. 178. Winter. Credit 5(0-10).

**180. Extension Problems.** This course deals with special problems in extension. Prerequisite: Ext. Ed. 149. Winter. Credit 3(0-6).

### SUGGESTED GRADUATE MAJOR IN AGRICULTURAL EDUCATION

|                                                                               |                |
|-------------------------------------------------------------------------------|----------------|
| Agricultural Ed. 501. Evening School and Part-Time Work .....                 | Credits 3(3-0) |
| Agricultural Ed. 502. Problem Teaching in Vocational Ag. ....                 | Credits 3(3-0) |
| Agricultural Ed. 505. The Principles of Agricultural Ed. ....                 | Credits 3(3-0) |
| Agricultural Ed. 505. Guidance and Group Instruction .....                    | Credits 3(3-0) |
| Agricultural Ed. 601. Administration and Supervision .....                    | Credits 3(3-0) |
| Agricultural Ed. 602. Curriculum Construction in Vocational Agriculture ..... | Credits 3(3-0) |
| Agricultural Ed. 604. Community Problems in Agriculture .....                 | Credits 3(3-0) |
| Agricultural Ed. 605. Problems in Educational Psychology .....                | Credits 3(3-0) |
| Industrial Ed. 521. Philosophy of Vocational Education .....                  | Credits 3(3-0) |
| Agricultural Ed. 606. Research in Education.....                              | Credits 3(3-0) |
| (Thesis 5-10 hours)                                                           |                |

Major 30 hours, minor 15 hours. A split minor may be taken making a major and minor 45 hours.

**For Graduates and Advanced Undergraduates**

- 501. Evening School and Part-Time Work.** This course deals with the principles and problems of setting up and directing adult groups and out-of-school groups; collecting and arranging materials for evening class instruction shall be given considerable space in the course. Credit 3(3-0).
- 502. Problem Teaching in Vocational Agriculture.** This course shall consist of setting up problems for teaching unit courses in Vocational Agriculture. Credit 3(3-0).
- 503. The New Farmers of America.** This course shall consist of a study of the practice and policies of setting up local, district and state organizations. Special space will be given to training the officers and members to perform. Credit 3(3-0).
- 504. The Principles of Agricultural Education.** Consideration of the Principles and Practices in Agricultural Education in keeping with the research and present trends. Credit 3(3-0).
- 505. Guidance and Group Instructions.** Group instructions applied to agricultural occupations, guidance and counseling with special reference to pupils in Vocational Agriculture. Credit 3(3-0).

**For Graduates Only**

- 601. Administration and Supervision.** Administrative and Supervisory problems of Vocational Agriculture. This course consists of a study in the practices and policies of local, State and Federal problems dealing with administration and supervision of Vocational Agriculture. Credit 3(3-0).
- 602. Curriculum Construction in Vocational Agriculture.** Building Unit Courses in Vocational Agriculture and selecting subject matter to use with the course along with the common problem evaluating the content of the course. Credit 3(3-0).
- 603. History of Vocational Agriculture.** A brief review of Vocational Education in Europe and America. Special space to be given to the Vocational Agriculture as it developed in the United States. Credit 3(3-0).
- 604. Community Problems in Agriculture.** This course shall consist of finding the common problems of the community that relate to Agriculture and developing desirable solutions for said problems. Credit 3(3-0).
- 606. Research in Vocational Education.** The student will make a study of one or more research problems under the supervision of some member of the Staff of the Vocational Education Division. Credit 3(3-0).

## GEOLOGY

**131. General Geology.** A general discussion of geologic forces and their results, dealing chiefly with the principal facts of the science, with reference to the agencies affecting changes in the earth's form. The course includes a study of composition of the earth, soil-forming minerals and characteristics. Rocks and their identification, weathering, residual soil formed from various rocks. The work of winds, ground water stream and their work, illuvial deposits. Glaciation of glacial soils, oceans, lakes and inland waters, together with interpretation of geologic and soil maps. Fall or Winter. Credit 5(4-2).

## DEPARTMENT OF ARCHITECTURAL ENGINEERING

The objective of the course in architectural engineering is to provide a sound training in subjects basic to the engineering design and construction of buildings.

In order that the students may acquire self-reliance, they are increasingly thrown upon their own resources as they advance from year to year.

In recognition of the many directions toward which an architectural education may guide students in this field, the Department of Architectural Engineering announces that electives in related work may be chosen by students of good standing with the approval of the Head of the Department in substitution of suggested electives.

The course of architectural engineering covers four years and leads to the degree of Bachelor of Science in Architectural Engineering.

### Freshman Year

See First Year's Curriculum of Mechanic Arts, Page 53.

### Sophomore Year

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| Working Drawings, A. E. 334.....            | 3(0-6)      | .....         | .....         |
| Timber Construction, A. E. 335.....         | .....       | 3(0-6)        | .....         |
| Masonry Construction, A. E. 336.....        | .....       | .....         | 3(0-6)        |
| General Physics, Physics 321, 322, 323..... | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| Mathematics, Math. 321, 322, 323.....       | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Military Science, M. S. 321, 322, 323.....  | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Arch. Design, A. E. 321, 322, 323.....      | 4(1-8)      | 4(1-8)        | 4(1-8)        |
| M. E. 317.....                              | 3(0-6)      | .....         | .....         |
|                                             | 22 Hrs.     | 19 Hrs.       | 19 Hrs.       |

### Junior Year

|                                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------|-------------|---------------|---------------|
| Mechanics, M. E. 331, 332, 333.....    | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Arch. Design, A. E. 331, 332, 333..... | 5(0-10)     | 5(0-10)       | 5(0-10)       |

|                                              |        |        |        |
|----------------------------------------------|--------|--------|--------|
| History of Arch. Art 324, 325, 326.....      | 5(5-0) | 5(5-0) | 5(5-0) |
| Heating and Ventilating, M. E. 334, 335..... | 3(0-6) | 3(3-0) | .....  |
| Perspective, A. E. 324.....                  | .....  | .....  | 3(3-0) |
| Freehand Drawing Art 311, 312, 313.....      | 3(0-6) | 3(0-6) | 3(0-6) |

|  |         |         |         |
|--|---------|---------|---------|
|  | 21 hrs. | 21 hrs. | 21 hrs. |
|--|---------|---------|---------|

**Senior Year**

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| Arch. Design, A. E. 341, 342, 343.....      | 5(0-10)     | 5(5-10)       | 5(5-10)       |
| Figure Drawing, Art 341, 342.....           | 3(0-6)      | 3(0-6)        | .....         |
| Concrete Design, A. E. 345.....             | .....       | .....         | 4(3-2)        |
| Architectural Practice, A. E. 346.....      | .....       | 2(4-0)        | .....         |
| Materials of Construction, I. A. 324.....   | 3(3-0)      | .....         | .....         |
| Surveying Math, 324.....                    | .....       | .....         | 3(1-4)        |
| Electives .....                             | 4           | 8             | .....         |
| Metallurgy, M. E. 339.....                  | 3(3-0)      | .....         | 3(3-0)        |
| Contracts and specifications M. E. 327..... | .....       | .....         | 3(3-0)        |

|  |         |         |         |
|--|---------|---------|---------|
|  | 18 hrs. | 18 hrs. | 15 hrs. |
|--|---------|---------|---------|

**Electives**

**Non-Technical**

French  
English

Commercial Law 335  
Economics 231, 232, 234

**Technical**

Testing Materials M. E. 346

Electric Wiring I. A. 326

**COURSES IN ARCHITECTURAL ENGINEERING**

**321. Design.** Problems are given in architectural design of small domestic buildings. Prerequisite: M. E. 312. Credit 4(1-8).

**322. Design.** Modeling of small buildings and landscaping is offered. Prerequisite: A. E. 321. Credit 4(1-8).

**323. Design.** Advance domestic buildings requiring the elements of planning for multiple uses, such as flats and apartments. Prerequisite: 322. Credit 4(1-8).

**324. Perspective.** Drafting principles of architectural perspective in parallel, angular, and aerial views are offered. Prerequisite: M. E. 324. Credit 3(0-6).

**331. Design, Laboratory Work.** A series of problems in architectural composition and structural details is offered. Prerequisite: A. E. 323. Credit 5(0-10).

**332. Design, Laboratory Work.** This course is a continuation of 331 emphasizing the design of small public buildings such as stores and cafeterias. Prerequisite: A. E. 331. Credit 5(0-10).



- 333. Design, Laboratory Work.** A continuation of 332. Designs of department stores and bank buildings. Prerequisite: A. E. 331. Credit 5(0-10).
- 334. Working Drawings.** Analyzing and drawing of architectural and structural engineering details. Prerequisite: A. E. 333. Credit 3(0-6).
- 335. Timber Construction.** This course deals with the fundamentals of Construction as it applies to Building with emphasis being placed on drawing of details. The Economical use of timber construction, such as Girder roof and Laminated Members. Prerequisite 334. Credit 3(0-6).
- 336. Masonry Construction.** Footing foundation and walls are treated in this course. Various types of footings for building foundations and wall construction are studied. Prerequisite: 335. Credit 3(0-6).
- 341. Laboratory Work with Individual Criticism.** Industrial engineering designs are studied. Studying structural details such as, plate girder and simple roof trusses of wood and steel. Prerequisite: A. E. 333. Credit 5(0-10).
- 342. Laboratory Work with Individual Criticism.** This course involves the selection of the design and presentation of a special project selected by the instructor. Prerequisite: A. E. 341. Credit 5(0-10).
- 343. Laboratory Work with Individual Criticism.** A collaborative problem is assigned. This involves the selection of the design and presentation of a special project selected by the instructor. Prerequisite: A. E. 342. Credit 5(0-10).
- 345. Concerted Design.** Lecture and recitation. Theory and design of reinforced concrete as applied to columns, beams and slabs for commercial buildings. Prerequisites: A. E. 336. Credit 4(3-2).
- 346. Architectural Practice.** A study of procedure in architectural practice. Seminar. Prerequisite: A. E. 343. Credit 2(2-0).

## DEPARTMENT OF BIOLOGICAL SCIENCES

### Major in Biological Sciences

A minimum of ten quarter hours in the biological sciences is required for graduation in the School of Education and Sciences, ten in home economics, and twenty in agriculture.

The following is suggested for those who desire to complete a major in this field of study. This major is recommended for those persons who wish to enter the field of teaching, research, the medical profession or government service.



**Junior Year**

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| General Physics, Physics 321, 322, 323..... | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| General and Organic Chemistry               |             |               |               |
| Chem. 113, 121, 122.....                    | 5(3-4)      | 5(2-6)        | 5(2-6)        |
| Plant Physiology, Botany 121.....           |             |               | 3(2-2)        |
| Plant Diseases, Botany 123.....             |             | 3(2-2)        |               |
| Hygiene, Phys. Ed. 233, 237.....            | 3(3-0)      |               | 3(3-0)        |
| Minor or Electives.....                     | 5(3-4)      | 5(3-4)        | 2( )          |

**Senior Year**

|                                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------|-------------|---------------|---------------|
| Anatomy and Physiology, Zool. 122..... | 5(3-4)      |               |               |
| General Bacteriology, Bact. 123.....   |             |               | 5(3-4)        |
| Genetics, Zool. 142.....               |             | 3(3-0)        |               |
| Histology, Zool. 132.....              |             | 3(2-2)        |               |
| Embryology, Zool. 143.....             |             |               | 3(2-2)        |
| Geography 240, 241.....                |             | 5(5-0)        | 5(5-0)        |
| Minor or Electives.....                | 10( )       | 5(3-4)        | 3( )          |

**Major in General Science**

This major was designed to meet the needs of those who plan to teach science in the small high schools of North Carolina, that do not provide a special teacher in each branch of science, and require persons whose scientific training is less specialized but sufficiently versatile to teach all of the required science courses.

**Junior Year**

|                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------|-------------|---------------|---------------|
| General Physics, Physics, 321, 322.....      | 5(4-2)      | 5(4-2)        |               |
| General Science, 131, 132, or equivalent.... | 5(4-2)      | 5(4-2)        |               |
| Entomology, Zool. 133.....                   |             |               | 5(3-4)        |
| Hygiene, Phys. Ed. 233, 237.....             | 3(3-0)      |               | 3(3-0)        |
| Chemistry 113, 121, 122.....                 | 5(3-4)      | 5(2-6)        | 5(3-4)        |
| Electives                                    |             |               |               |

**Senior Year**

|                                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------|-------------|---------------|---------------|
| Geography, Geog. 240, 241.....       | 5(5-0)      | 5(5-0)        |               |
| General Bacteriology, Bact. 123..... | 10( )       | 10( )         | 15( )         |
| Minor or Electives                   |             |               |               |

**COURSES IN BACTERIOLOGY**

**123. General Bacteriology.** This course covers the preparation of culture media, isolation of bacteria, the study of morphological characteristics of typical bacteria, morphology of yeasts and molds, fermentation, the relation of bacteria to health of man, and the principles of disinfection and sterilization. Spring. Credit 5(3-4).

- 132. Agricultural Bacteriology.** The purpose of this course is to give the student a knowledge of the biological changes which are produced in both animal and plant products. Emphasis is placed on bacterial activities in the soil, their relation to soil fertility, and fermentation in dairy products. Winter. Credit 5(3-4).

### COURSES IN ZOOLOGY

- 111. General Zoology.** This course gives a brief survey of the animal kingdom and deals with the morphology, physiology and taxonomy of the essential types of life. Emphasis is placed on the development from protozoa through metazoa. The various theories underlying evolution and the relation of environment to adaptive radiations are discussed. Laboratory work and movies supplement the lectures and class discussions. Any quarter. Credit 5(3-4).
- 122. Comparative Anatomy and Physiology.** The lectures on descriptive anatomy will cover the fundamentals from the preparatory point of view and will be illustrated by drawings, plates, models, skeletons and dissection. About one half of the time will be devoted to the study of anatomy. The study of physiology will be facilitated by lectures, demonstrations, movie films and suitable experiments. The study of the functions of the various organs and systems of organs will be emphasized. Winter quarter. Credit 5(3-4).
- 133. Entomology.** This course covers the fundamentals of insect structure, insect metamorphosis and development, the economic importance of insects to man, and methods of insect control. Practical methods applicable to farm and home are stressed. Spring quarter. Credit 5(3-4).
- 132. Histology.** This course deals with the microscopic structure of tissues of the body. A thorough study of the microscope and proper laboratory techniques are involved. Winter quarter. Prerequisites: Zool. 111 and 122. Credit 3(2-2).
- 142. Genetics and Eugenics.** This is a basic course in the study of the principles and mechanism of inheritance in plants, animals and man, and includes methods of improvement through selective breeding. Any quarter. Prerequisite: Zool. 111. Credit 3(3-0).
- 143. Embryology.** This course takes up the development, principles and processes of embryology, using vertebrate embryos. Germ cell origin and structure, maturation, fertilization, cleavage, differentiation, tissue formation and organogeny are covered. Spring quarter. Prerequisites: Zool. 111 and 122. Credit 3(2-2).

**Graduates and Advanced Undergraduates**

- 501. Vertebrate Embryology.** This course deals with the comparative embryology of the principal groups of vertebrates. Prerequisite: 15 hours of zoology. Credit 5(3-4).
- 502. Advanced Genetics.** This is a continuation of the study of principles of heredity and variation affecting animals and plants. Credit 3(1-4).
- 503, 504. Advanced Histology.** This is a further study of animal tissues, their preparation, and microscopic technique. Credit 3(2-2) each quarter.
- 511, 512. Research in Zoology.** Special problems will be investigated through research and experimentation. Prerequisites: 30 hours in science with 15 hours in zoology. Credit 5(2-6) each quarter.

**Graduates**

- 601. Special Problems in Insection Control.** This will cover investigation of practical problems in the control of insects affecting field crops, livestock, garden, orchard and home. Credit 5(3-4).

**COURSES IN GENERAL SCIENCE**

- 131. The Physical World.** This course is concerned with a survey of the whole field of science. It begins with a study of the universe as a background for understanding the earth and physical sciences and man's relationship with them, and closes with a consideration of those forces that have had greatest influence on human development. Summer or Fall. Credit 5(4-2).
- 132. The Biological and Chemical World.** This course is a continuation of General Science 131 and is especially concerned with (1) man and his relationship to the biological and chemical world, (2) how plant and animal life, and (3) how science and inventions have affected civilization. These courses are considered as a unit and both must be completed in order to receive credit. Summer or Winter. Credit 5(4-2).

**COURSES IN BOTANY**

- 111. General Botany.** This course is intended to give the fundamental facts, functions and principles of plant life. Any quarter. Credit 5(3-4).
- 112. Plant Taxonomy.** This course is designed to give students information on the families, genera, species and varieties. The student will be able to identify plants in North Carolina and adjoining states by families and the binominal-nomenclature. Prerequisite: Botany 111. Any quarter. Credit 5(3-4).

- 121. Plant Physiology.** The plant is considered from the standpoint of activities; absorption and transportation of raw materials, manufacture, storage of food, growth and movement in response to stimuli. Prerequisite: 111. Spring. Credit 3(2-2).
- 123. Plant Diseases.** This course takes into consideration the most important diseases of the important southern crops. Prerequisites: 111, 121. Fall. Credit 3(2-2).
- 124. Plant Ecology.** Lectures on the vegetation of North Carolina with special reference to the plant association of the State. Prerequisite: 111. Quarter to be arranged. Credit 3(2-2).
- 125. Principles of Forestry.** Relation of forestry to agriculture and economics. Trips will be made to farm woodlots. Spring. Credit 3(3-0).

### DEPARTMENT OF BUSINESS ADMINISTRATION AND COMMERCIAL EDUCATION

During the first two years the student is expected to lay a broad foundation for later specialization. To secure this end the courses in the freshman and sophomore years have been so selected and grouped as to cover all the major fields of knowledge.

#### Required Courses for Freshmen and Sophomores

|                                    |     |
|------------------------------------|-----|
| Eng. 211, 212, 213.....            | 15  |
| Public Speaking Eng. 224.....      | 3   |
| Math. 311, 312, 315.....           | 15  |
| Music or Art Appreciation.....     | 6   |
| Military Science .....             | 12  |
| Physical Education for Women.....  | 6   |
| Orientation Ed. 211, 212, 213..... | 3   |
| Chem. 111, 112.....                | 10  |
| Biological Sc. or Physics.....     | 10  |
| Sec. Sc. 317, 318, 319.....        | 7.5 |
| History 213, 221 or 222.....       | 10  |
| Economics Ec. 231, 232, 233.....   | 15  |

#### Business Administration

The following is suggested for those desiring to complete a major in the field of business administration.

This major is recommended for those planning to enter one of the practical fields of trade or industry as administrators or office workers.

**Junior Year**

|                                                     | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------------|-------------|---------------|---------------|
| Business Management, B. A. 351.....                 | 5(5-0)      | .....         | .....         |
| Principles of Retailing, B. A. 346.....             | .....       | .....         | 5(5-0)        |
| Bookkeeping and Accounting, B. A.<br>332, 333 ..... | 5(5-0)      | 5(5-0)        | .....         |
| Electives .....                                     | 2 Hrs.      | 7 Hrs.        | 2 Hrs.        |
| Cost Accounting B. A. 341.....                      | .....       | .....         | 5(5-0)        |
| Business Correspondence B. A. 339.....              | .....       | 5(5-0)        | .....         |
| Statistics Math. 318.....                           | .....       | .....         | 5(5-0)        |
| Sociology Soc. 231.....                             | 5(5-0)      | .....         | .....         |
|                                                     | 17          | 17            | 17            |

**Senior Year**

|                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------|-------------|---------------|---------------|
| Office Management, B. A. 352.....          | .....       | 5(5-0)        | .....         |
| Personnel Administration, B. A. 353.....   | .....       | .....         | 5(5-0)        |
| Commercial Law, B. A. 335.....             | 5(5-0)      | .....         | .....         |
| Principles of Real Estate, B. A. 357.....  | 5(5-0)      | .....         | .....         |
| Insurance, B. A. 356.....                  | .....       | 5(5-0)        | .....         |
| Principles of Salesmanship, B. A. 337..... | .....       | .....         | 5(5-0)        |
| Labor Problems, Ec. 234.....               | .....       | .....         | 5(5-0)        |
| Electives .....                            | 7 Hrs.      | 7 Hrs.        | 2 Hrs.        |
|                                            | 17          | 17            | 17            |

**Suggested Electives**

|                       |                       |
|-----------------------|-----------------------|
| Eng. 244, 231         | S. Sc. 314, 315, 316. |
| Ec. 254.              | B. A. 324.            |
| S. Sc. 321, 322, 323. |                       |

**Commercial Education**

The following is suggested for those desiring to complete a major in the field of commercial education.

This major is recommended for those planning to enter one of the practical fields of teaching in high schools.

**Major in Commercial Education****Junior Year**

|                                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------------------------------------------|-------------|---------------|---------------|
| Business Management 351 .....                               | 5(5-0)      | .....         | .....         |
| Principles of Retailing, B.A. 346.....                      | .....       | .....         | 5(5-0)        |
| Bookkeeping and Accounting, B.A.<br>332, 333 .....          | 5(5-0)      | 5(5-0)        | .....         |
| Sec. Sc. 314, 315, 316.....                                 | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Principles of Secondary Education,<br>Ed. 237, or 238 ..... | .....       | 3(3-0)        | .....         |



|                                        |        |        |
|----------------------------------------|--------|--------|
| Educational Psychology, Ed. 231 .....  | .....  | 5(5-0) |
| Statistics Math. 318.....              | .....  | 5(5-0) |
| Freehand Drawing Art 311.....          | 3(0-6) | .....  |
| Business Correspondence B. A. 339..... | 5(5-0) | .....  |
|                                        | <hr/>  | <hr/>  |
|                                        | 18     | 18     |
|                                        |        | 20     |

**Senior Year**

|                                                     | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------------|-------------|---------------|---------------|
| Personnel Administration, B.A. 353 .....            | .....       | .....         | 5(5-0)        |
| Commercial Law, B.A. 335 .....                      | 5(5-0)      | .....         | .....         |
| Secretarial Studies, Sec. 323 .....                 | 6(2-8)      | .....         | .....         |
| Advanced Stenography, Sec. Sc. 322.....             | .....       | 5(5-0)        | .....         |
| Office Training, Sec. Sc. 321a, 321b.....           | 2(2-0)      | .....         | 6(0-13)       |
| Problems of Commercial Teacher, Ed. 250 .....       | .....       | 5(5-0)        | .....         |
| Observation and Practice Teaching,<br>Ed. 251 ..... | .....       | .....         | 5(1-8)        |
| Office Management, B.A. 352 .....                   | .....       | 5(5-0)        | .....         |
| Office Appliances, See Sec. Sc. 234 .....           | .....       | .....         | 1.5(0-3)      |
| Auditing B. A. 343.....                             | 5(5-0)      | .....         | .....         |
| Electives, Test & Measurement Ed 236.....           | 5(5-0)      | 3 Hrs.        | .....         |
|                                                     | <hr/>       | <hr/>         | <hr/>         |
|                                                     | 18          | 18            | 17.5          |

**Suggested Electives**

|                    |                     |
|--------------------|---------------------|
| French or Spanish  | Ec. 234, 254.       |
| Ed. 243, 236, 341. | B.A. 337, 356, 357. |
| Ec. 234, 254.      | Soc. 231            |

**COURSES IN BUSINESS ADMINISTRATION AND  
COMMERCIAL EDUCATION**

**332. Bookkeeping and Accounting.** This course is specially designed to serve as an introduction to the fundamental principles of bookkeeping and accounting. A thorough study is made of the theory of accounts, principles of debit and credit, special journals and ledger operations, adjustments, financial statements and the handling of different classes of commercial paper. Credit 5(5-0).

**333. Accounting.** This course presents the underlying principles of accounting as it is practiced in the business world. It deals chiefly with corporation accounting and accounting systems. This is followed by a discussion of the principles underlying accounting valuation and interpretation. The uses to which accounting data are to be put are emphasized at every step. Prerequisite: B.A. 332. Credit 5(5-0).



- 335. Commercial Law.** Sales of personal property, bailment, common carriers, agency, master and servant, partnership, contracts, corporation, insurance, landlord and tenant, etc. Credit 5(5-0).
- 337. Principles of Salesmanship.** This course is based upon actual experience of men successful in the field of salesmanship. It develops the subject from sound economics, philosophical, and psychological points of view. Economics of salesmanship is presented so that the student may see where the work performed is justifiable and necessary in the economic regime. The course includes psychology so that the student may more readily adjust himself to actual sales conditions and learn why some men and ideas succeed while others fail. Credit 5(5-0).
- 339. Business Correspondence.** This course makes a thorough and practical analysis of all forms of business letters and gives constructive information on how to write letters that convince, whether they be sales letters, follow up letters, form letters, complaint, collection and application letters. This course is required of all students in Business Administration and Secretarial Science. Prerequisites: Eng. 211, 212. Credit 5(5-0).
- 341. Cost Accounting.** This course is a study of the elements and principles of cost accounting. Emphasis is placed on accounts as a means of administrative control and economy of production. The theory of cost accounting and its relation to general accounting, to cost in general, to stock records, and to methods of establishing the basis of cost are among the fundamentals considered in this course. Prerequisites: 332, 333 or 351 5(5-0).
- 343. Auditing.** This course covers the duties and responsibilities of the auditor, principles and procedures in making audits; arrangement of working papers and the preparation of reports. Prerequisite: B. A. 332, 333, 341. Credit 5(5-0).
- 346. Principles of Retailing.** This course aims to cover the high points in the retail process of marketing as it is applied especially to the small independent store. Modern grocery and other smaller stores will be used as examples. Detailed studies will be made of store management, finance and control, and marketing. Credit 5(5-0).
- 351. Business Management.** Business Management covers the fundamentals of industrial organization and operation and helps the student to gain that basic knowledge of business which should be part of the equipment of every businessman. Credit 5(5-0).
- 352. Office Management.** This course covers the principles and methods employed in departmental and centralized offices. Special at-

tention is given to office layout, office system, equipment, selecting workers and general office services. Credit 5(5-0).

**353. Personnel Administration.** This is a comprehensive course dealing with the principles and practices in the administration of employees of commercial and industrial establishments. This course is very practical, giving the student a view of personnel as the businessman sees it. Credit 5(5-0).

**356. Insurance.** This course is a survey in a general way of the whole field of insurance. It deals with the nature and statistical basis of different kinds of insurance as property insurance, straight life, endowment, accident, industrial, old age, fire, livestock, etc. The function of publicity and the need for educating the public in the principles and services of insurance receive much attention. Credit 5(5-0).

**357. Principles of Real Estate.** This course deals with real estate as a profession, classes of property—suburban, apartment, industrial, farm and resort—rentals, leasing, the work of the broker, property management and financing. Credit 5(5-0).

## DEPARTMENT OF CHEMISTRY

Prospective majors in chemistry should consult the instructors in the department early in their college career so that their major work may be properly planned.

At least ten quarter hours of General Chemistry are required for graduation in Education and Sciences of all who do not take ten hours in general physics.

The following is suggested as a major for those interested in graduate study, research, industry, government service or teaching.

NOTE: Courses for freshmen and sophomores may be found on pages 49, 54, 58.

### Major in Chemistry

#### Junior Year

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| Organic Chemistry, Chem. 121, 122, 123 .... | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Qualitative Analysis, Chem. 131 .....       | 5(2-6)      | .....         | .....         |
| Minor or Electives .....                    | 5( )        | 10( )         | 10( )         |

#### Senior Year

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| Physical Chemistry, Chem. 141, 142 .....    | 5(5-0)      | 5(5-0)        | .....         |
| Quantitative Analysis, Chem. 132, 133 ..... | 5(2-6)      | 5(2-6)        | .....         |
| Minor or Electives .....                    | 5( )        | 5( )          | 15( )         |

**COURSES IN CHEMISTRY****For Undergraduates**

- 111. General Chemistry.** This is the first quarter of a course covering the fundamental principles of Chemistry in which are considered the general properties of matter, chemical and physical changes, the fundamental laws governing these changes, and a study of the important gaseous elements and simple compounds from the point of view of the atomic and molecular theory. Credit 5(3-4).
- 112. General Chemistry.** A continuation of Chem. 111. It covers the properties, reactions, and uses of the more important non-metallic elements, atomic structure, and a study of electrolytes. Credit 5(3-4).
- 113. General Chemistry.** This is the third quarter of the complete course in General Chemistry. It consists of a detailed study of the metals, including their metallurgy, properties, reactions, and uses. The laboratory work emphasizes the behavior of the metallic ions in solutions and their arrangement in the qualitative groups. Ionic equilibria and oxidation and reduction are considered in detail. Credit 5(3-4).
- 121. Organic Chemistry.** A course dealing with the chemistry of the carbon compounds. Special emphasis is laid upon the relationship existing between the various groups, and upon methods of organic synthesis. Prerequisites: 111, 112, 113. Fall. Credit 5(3-4).
- 122. Organic Chemistry.** A continuation of Chemistry 121, covering such compounds as the ring structure or aromatic compounds. Lectures and laboratory. Prerequisite: Chem. 121. Winter. Credit 5(3-4).
- 123. Advanced Organic Chemistry.** Lectures and laboratory on the applications and limitations of organic reactions, with special reference to synthesis. Prerequisites: Chem. 121, 122. Fall and Spring. Credit 5(3-4).
- 125. Chemical Literature Study.** A course to familiarize students with the more prominent chemical periodicals. It introduces techniques used to search the literature in regards to a particular subject or compound and how to use the subject, author or formula index of abstract, dictionary and research report journals. Prerequisites: Chem. 121, 122. Fall and Spring. Credit 2(1-2).
- 131. Qualitative Analysis.** This course is an intensive course dealing with the fundamental principles of analysis. It develops the power for the student to form decisions based upon experimental

results. Preliminary experiments are introduced to illustrate chemical principles and to give practice in equation writing. The students are required to analyze unknown products, slags, and alloys. Prerequisites: Chem. 111, 112, and 113. Fall and Spring. Credit 5(2-6).

**132. Quantitative Analysis.** A course dealing with volumetric methods of analysis. Special emphasis is laid upon the physico-chemical principles upon which the success of the determination depends. Prerequisite: Chem. 131. Fall and Winter. Credit 5(2-6).

**133. Quantitative Analysis.** A continuation of Chemistry 132, dealing with gravimetric methods of analysis. Lectures and laboratory. Prerequisite: Chem. 131. Winter. Credit 5(2-6).

**141. Physical Chemistry.** A study of the atomic, molecular and ionic theories, and the properties of substances directly related to these theories. Requirements: Physics 323, Mathematics 321, Chem. 113. Fall. Credit 5(5-0).

**142. Physical Chemistry.** A study of the rate and equilibrium of chemical changes from mass-action and phase viewpoints. Requirements: Chemistry 141. Winter. Credit 5(5-0).

**145. Introduction to Chemical Research.** Open to advanced students in the field chemistry. Any quarter. Credit 4(1-6).

**146. Chemical Engineering.** A study of the thermal properties of matter and the energy relationships underlying mechanical and chemical processes, including a thorough discussion of the first law of thermodynamics as applied to both batch and flow processes, and such operations as combustion, thermal control of chemical reactions, and the like. Prerequisites: Chem. 141, Mathematics 321. Credit 4(4-0).

#### Graduate Course

**601. Problems in Organic Chemistry.** The important principles of organic chemistry are emphasized from a more mature point of view. Credit 5(3-4).

## DEPARTMENT OF EDUCATION

### Professional Requirements for Undergraduates

The professional education courses are designed to provide understandings, knowledges, skills, and experiences which relate to the art and science of teaching. The professional courses in education are organized around three areas: The Pupil; The School; and Methods, Observation, and Practice Teaching. The student who desires to meet the requirements for teacher certification in the high schools of North Carolina should complete a minimum of nine quarter hours in each of these areas.

The following are courses in each of the three major areas:

#### The Pupil

|                                                |        |
|------------------------------------------------|--------|
| Educational Psychology, Ed. 231 .....          | 5(5-0) |
| Introduction to Guidance, Ed. 233 .....        | 3(3-0) |
| Evaluation and Measurements, Ed. 236 .....     | 3(3-0) |
| *Field-Laboratory Experiences in Ed. 234 ..... | 2(1-1) |

#### The School

|                                                  |        |
|--------------------------------------------------|--------|
| Principles of Secondary Education, Ed. 237 ..... | 3(3-0) |
| Problems in Secondary Education, Ed. 238 .....   | 3(3-0) |
| Educational Philosophy, Ed. 224 .....            | 3(3-0) |

#### Methods, Observation and Practice Teaching

|                                                                                                                    |        |
|--------------------------------------------------------------------------------------------------------------------|--------|
| Materials and Methods of Teaching, Ed. 243, 245,<br>246, 247, 248, 249, or 250 .....                               | 5(5-0) |
| (The particular course to be pursued by the student will be<br>determined by his or her major and minor subjects.) |        |
| Observation and Practice Teaching .....                                                                            | 5(1-8) |

Students whose general average is less than B in their major field will be ineligible to take the professional courses preparatory to a teachers' certificate and will not be recommended for same.

In those cases where students show weaknesses, additional professional education or academic courses may be required.

Students are requested to enroll for Methods of Teaching and Practice Teaching during the same quarter and in no case will they be permitted to register for more than thirteen hours during the quarter Practice Teaching is scheduled.



**COURSES IN EDUCATION****For Undergraduates**

- 211. Orientation.** This course consists of lectures and discussions designed to provide the student with functional insight into methods of improving study, taking notes, and using the library. It introduces the student to various broad groups of vocations. Effective matching of individual qualifications with significant occupational requirements will be considered. Any quarter. Credit 1(1-0).
- 221. General Psychology.** An introduction to psychological terms, principles and facts. What psychology is and does. A study of reactions and tendencies to reaction; native and acquired traits, instincts, emotions, feelings, sensations. This course will not be counted to meet the specific requirements in education for a high school teacher's certificate. Fall. Credit 5(5-0).
- 222. Introduction to the Study of Education.** This course is designed to give the student an overview and an introduction to the nature of education and its place in the social order, guidance and its relation to education, the organization and administration of schools, the nature of the pupil and his needs, the curriculum and other instructional materials, the place of the teacher in the school and teaching as a profession. Credit 3 (3-0).
- 224. Educational Philosophy.** The fundamental concepts and ultimate objectives of education, current educational doctrines and controversies, changes in educational procedures, historical background and philosophical implications. Credit 5(5-0).
- 231. Educational Psychology.** This course is devoted to a study of native and acquired traits and capacities of children; the learning process; individual differences; general laws and conditions of learning; and the results of investigations relative to the progress of learning in the school subjects. Prerequisite: Education 221 or Junior standing. Spring and Summer. Credit 5(5-0).
- 233. Introduction to Guidance.** This course deals with techniques of guidance and counseling as applied to the individual. Emphasis will be placed on practical experiences as well as on theory in dealing with problems of pupil guidance and educational adjustment. Consideration will be given counseling techniques and aids in counseling problems at different school levels. Credit 3(3-0).
- 234. Field-Laboratory Experiences in Education.** This course is to provide opportunity for practical field experiences in public and private social agencies and in schools. The registrant is placed as



an apprentice under a responsible educational or social worker in the field and is required to attend a group conference each week. The field service will be integrated with other professional education courses in an effort to increase the students understanding of problems in education, the pupil, and social agencies which are related directly or indirectly to the school. Credit 2(1-2).

**236. Evaluation and Measurements.** In this course the selection and construction of tests and the interpretation of test results; testing and evaluation as a means of discovering capacities, abilities, interests, and the achievement of the pupil will be considered. The use of various tests will be studied as a means of discovering evidences of growth and development of the individual. Prerequisite Ed. 231. Credit 5(5-0).

**237. Principles of Secondary Education.** The scope and function of the high school and its relation to the elementary school and college; the high school pupil; high school curriculum; high school teacher; guidance; teaching loads; professional ethics; extracurricular activities. Required of all who plan to teach. Fall and Summer. Credit 3(3-0).

**238. Problems In Secondary Education.** This course deals with problems which arise in secondary school administration and teaching. Problems and their solution are discussed in the light of the principles taken up in Education 237. Credit 3(3-0).

**243. The Teaching of English.** This course is a study of the special problems which confront the teacher of English in the high school. Open only to seniors. Required of those planning to teach English. Prerequisites: Thirty hours of English, Education 231 and 237 or 238. Fall and Winter. Credit 5(5-0).

**245. The Teaching of Social Sciences.** A course dealing with a study of the methods of teaching history in high schools. Special attention will be given to such problems as the organization of material, classroom equipment, etc. Open to seniors. Required of those planning to teach the subject. Prerequisites: Thirty hours of Social Studies; Ed. 231 and 237 or 238. Fall and Winter. Credit 5(5-0).

**246. The Teaching of Mathematics.** A course which deals with the evaluation of subject matter, modes, methods, and objectives in the teaching of mathematics in the junior and senior high school. Required of those planning to teach the subject. Prerequisite: 20 hours of Mathematics; Ed. 231, 237 or 238. Fall and Winter. Credit 5(5-0).

- 247. The Teaching of Modern Languages.** This course is devoted to a study of the problems and difficulties experienced in teaching Foreign Languages. Special attention is given to the matter of classroom aids, equipment, etc. Required of those students planning to teach Languages. Prerequisite: 30 hours of French; Ed. 231 and 237 or 238. Fall and Winter. Credit 5(5-0).
- 248. The Teaching of Art.** A study of the aims and objectives, methods and techniques of art teaching in the modern school. Special attention is given to planning courses of study, presentation, selection of equipment, reference and illustrative material and correlation—considerable emphasis placed on blackboard drawings. Required of those wishing to qualify as art teachers. Prerequisite: 45 hours of Art; Ed. 231, 237 and 238. Fall and Winter. Credit 5(5-0).
- 249. The Teaching of Science.** A study of the present methods of teaching such subjects as biology, physics, chemistry, and general science in the high school. Special attention is given to laboratory equipment used in the teaching of these subjects. Required of all those planning to teach in this field. Prerequisites: 3 hours of science; Ed. 231 and 237 or 238. Fall and Winter. Credit 5(5-0).
- 250. The Teaching of Commercial Subjects.** Organization, preparation and care of materials, followed by an analysis of the methods of procedure, standards and objectives of the teacher of commercial subjects in high school. Students may be admitted to this course only upon the recommendation of the head of the Department of Commercial Education. Fall and Winter. Credit 5(5-0).
- 251. Observation and Practice Teaching.** All students planning to teach are required to spend at least sixty hours in practice teaching in the type of school in which they plan to work. Students should schedule this course only after consultation with the Director of Practice Teaching. In no instance will a student be permitted to carry more than thirteen hours (including Education 251) during the quarter this course is scheduled. Fall, Winter, Spring. Credit 5(1-8).
- 152B. Methods of Teaching Home Economics.** This course deals with the aims of education, and the place of home economics in general education, development of a philosophy, methods of teaching, means of evaluating learnings. Consideration will be given to aid in personality development of the teacher, and other problems of the home economics teacher. Opportunity will be provided for observation in various schools. Prerequisites: Education 231 and 237. Credit 2½ (3-0).

**152A. Methods of Teaching Home Economics.** The course considers the organization of general home economics from elementary through high school. Emphasis is placed on the State Vocational Home Economics program, its organization, administration, policies and methods. Prerequisite: Education 152A. Credit 2½ (3-0).

**153. Observation and Directed Practice Teaching.** The course is planned to guide students in selecting, evaluating, and using materials and methods in actual teaching situations. Problems growing out of student teaching experiences will be analyzed and used as basis for individual and group conference. Participation in home projects, adult and Home Economics Club program will be encouraged. Thirty hours of observation, 60 hours teaching required. Prerequisites: Education 152A-152B. Credit hours 5.

See also: (1) Agricultural Education, p 00.

(2) Vocational Agriculture, p 00.

(3) Industrial Education, p 000.

(4) Vocational Education, p. 000.

---

## DEPARTMENT OF ELECTRICAL ENGINEERING

The curriculum of the Department of Electrical Engineering is designed to prepare students for the opportunities in the electrical field which exists and are available to its graduates. A large number of graduates have obtained work in radio fields and for that reason the Department has several courses leading to work of this nature.

This curriculum includes courses closely akin to physics and mathematics and by choosing the required courses in education a student may graduate with a degree in electrical engineering and a certificate to teach mathematics or general science. Sufficient hours are included under "electives" to allow time for the professional education courses required for this purpose.

### CURRICULUM

#### Freshman Year

See first year's curricula of Mechanic Arts, page 51.

#### Sophomore Year

|                                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------|-------------|---------------|---------------|
| Physics 321, 322, 323 .....          | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Mathematics 321, 322, 323 .....      | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Military Science 221, 222, 223 ..... | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Machine Shop Practice 328, 329 ..... | 2(0-4)      | 2(0-4)        | .....         |

|                                        |        |        |        |
|----------------------------------------|--------|--------|--------|
| Mechanical Drawing 323, 324, 325 ..... | 3(0-6) | 3(0-6) | 3(0-6) |
| Mechanism, M. E. 321 .....             |        |        | 3(3-0) |
| M. E. 317 .....                        | 3(0-6) |        |        |

**Junior Year**

|                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------|-------------|---------------|---------------|
| Mechanics, M. E. 331, 332, 333 .....       | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Electrical Engineering 331, 332, 333 ..... | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Electrical Engineering 334, 335 .....      | 5(3-4)      | 5(3-4)        |               |
| Heat Power Engineering, M. E. 336 .....    |             | 5(5-0)        |               |
| Economics, Ec. 231 .....                   | 5(5-0)      |               |               |
| Contract Specifications, M. E. 327 .....   |             |               | 3(3-0)        |
| Electives .....                            |             |               | 3             |

**Senior Year**

|                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------|-------------|---------------|---------------|
| Electrical Engineering 346, 347, 348 ..... | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Electrical Engineering 350 .....           | 3(3-0)      |               |               |
| Electrical Engineering 354 .....           |             | 5(3-4)        |               |
| Electrical Engineering 355, 356 .....      | 3(3-0)      | 3(3-0)        |               |
| Hydraulics, M. E. 337 .....                | 3(3-0)      |               |               |
| Metallurgy, M. E. 330 .....                | 3(3-0)      |               |               |
| Electives .....                            |             | 5             | 10            |

**Suggested Electives**

Electrical Engineering 353, 357, 358, 351.  
 Differential Equations, Math. 331.  
 Education (Professional Certificate Requirements).  
 Estimating, C. I. 344.

**COURSES IN ELECTRICAL ENGINEERING**

- 331. Direct Current Machinery.** The laws of magnetism, induction and electrical circuits are chiefly covered. Then follows a careful study of machines with regard to their construction, performance characteristics and practical operation. Numerous problems are given throughout the course to aid in gaining a complete understanding of the various laws. Credit 5(3-4).
- 332. Direct Current Machinery.** A continuation of the preceding course in which the subject of D. C. machinery is further developed. Prerequisite: E. E. 331. Credit 5(3-4).
- 333. Alternating Current Circuits.** This course is designed to familiarize the student with the laws of alternating current circuits before taking up the study of alternating current machinery. The course begins with a study of sine waves, effect of inductance and

ries and parallel circuits and for alternating current networks. The graphical method of solution is also presented and extended to cover locus diagrams. The various polyphase systems are studied and the effect of unbalanced loads is noted. Prerequisite: E. E. 332. Credit 5(3-4).

**334. Electrical Measurement.** A careful study is made of the theory and operation of instruments of precision used in electrical testing laboratories for measurement of electrical quantities. Instruction in the theory and use in laboratory and commercial bridges, and potentiometers of general and special types. Pre-capacitance and resonance phenomena. The vector method, using complex notation, is used extensively in solving problems of sequence. Prerequisite: Physics 323. Credit 5(3-4).

**335. Electrical Measurement.** A continuation of the preceding course with additional work in bridges. A study is made of measurement of magnetism inductance and capacitance, mutual inductance. Prerequisite: E. E. 334. Credit 5(3-4).

**346. Communication Engineering.** This is a study of network theorems, transmission lines, reflection, filters and coupled circuits. Simple telephone circuits, and experiments are a part of the course. Prerequisite: E. E. 333. Credit 5(3-4).

**347. Communication Engineering.** This is a continuation of 346. It includes a study of oscillators, audio and radio frequency amplifiers and detectors. Prerequisite: 346. Credit 5(3-4).

**348. Communication Engineering.** This is a continuation of 347. A study is made of modulated radio frequency amplifiers, mathematical analysis of oscillators, modulators, detectors and amplifiers. Prerequisite: 347. Credit 5(3-4).

**350. Industrial Motor Control.** The preliminary work in this course consists of a more complete study of the various types of motors than was possible in the regular courses in electrical machinery. The remainder of the course is a study of the principles of the various types of manual and automatic control, the details of control apparatus and wiring diagrams. Prerequisite: E. E. 333. Credit 5(3-4).

**351. Power Transmission.** A study of power distribution, wiring for lighting and substation feeder systems. Credit 3(3-0).

**352. Storage Batteries.** A study of the operating characteristics and engineering applications of secondary cells. Credit 3(3-0).

**353. Electric Railways.** Operating characteristics and principles of electric railways. Credit 3(3-0).



- 354. Radio Circuits.** A study of receiving and transmitting and receiving apparatus, and their practical applications. Prerequisite: E. E. 348. Credit 5(3-4).
- 355. Alternating Current Apparatus.** This is a study of alternating equipment. Prerequisite: E. E. 333. Credit 3(3-0).
- 356. Alternating Current Apparatus.** This is a continuation of 335. It includes a mathematical study of wave analysis unbalanced polyphase circuits and power problems. Prerequisite: E. E. 355. Credit 3(3-0).
- 357. Radio Servicing.** This is a study of modern radio servicing methods of all types of radio receivers, public address equipment, sound motion picture machines, interoffice communication systems and various combinations of these. It includes consideration of sales and business practices especially as they relate to graduates of this course. Extensive laboratory experiments are a part of the course. Prerequisite: E. E. 354. Credit 5(3-4).
- 358. Radio Servicing.** This is a continuation of 357. Laboratory experiments and work in commercial installation are stressed. Prerequisite: E. E. 357. Credit 5(3-4).
- 

## DEPARTMENT OF ENGLISH LANGUAGE AND LITERATURE

All freshmen are required to take a placement test in English. Those failing this test must register for the course Remedial English (Eng. 210).

A minimum of twenty quarter hours of English is required for graduation from all departments. All students of all departments must take Eng. 211, Eng. 212, and Eng. 213. Five hours of literature are required.

### English Majors and Minors

English majors and minors are required to have an average of B in their three Freshman English courses and to pass a comprehensive examination in the field of English at the end of the Fall Quarter of their senior year. Those failing this examination will be required to register for English 245.

A major in English is designed for persons interested in teaching English in the secondary school or in pursuing graduate work in the field. It is also recommended for those intending to follow law, the ministry, writing, or research as a profession.

An English minor satisfies the State's certification requirements for English as a second teaching field on the secondary level.

**Requirements for the major** (in addition to the three Freshman English courses).

English 222

English 223

English 220

English 221

English 234

English 244

Electives from any other advanced English courses sufficient to complete the required 50 hours.

**Requirements for the minor** (in addition to the three Freshman English courses):

English 239 or 234

English 223

English 220

English 221

English majors and minors are advised to take English 224 and English 232 to meet requirements for certification in English in the state of North Carolina.

Courses (in addition to basic requirements) which might be taken by those majors who are interested primarily in language and literature.

Negro Literature (215)—3

Dramatic Literature (226)—3

Eighteenth Century Literature (241)—3

The Romantic Era (242)—3

The Victorian Era (243)—3

Development of Modern English (237)—3

Courses (in addition to basic requirements) which might be taken by those majors who are interested primarily in speech and dramatics.

Public speaking (225)—2

Oral Interpretation (227)—2

Acting (228)—3

Argumentation and Debating (237)—3

Dramatic Literature (226)—3

Parliamentary Procedure (229)—1

## COURSES IN ENGLISH

### Language and Composition

**210. Remedial English.** Emphasis upon the elementary requirements in English usage; such as, the rudiments of grammar, sentence punctuation, reading, and spelling. Students who fail to pass the placement test in English are required to complete this course in addition to the regular English requirements. Credit 3(3-0).

- 211. Grammar.** A review of the fundamental principles of grammar and the application of these principles in sentences and paragraphs. Correct spelling is given considerable attention in this course. Any quarter. Credit 5(5-0).
- 212. Composition.** Continuation of English 211, with emphasis upon themes and vocabulary building and practice in using the library. Prerequisite: Eng. 211. Any quarter. Credit 5(5-0).
- 213. Composition and Reading.** An approach to techniques of clear and effective writing through examples of various literary types by writers whose works exemplify the finest qualities of composition. The writing of longer compositions will continue, with a view to the cultivation of an individual style on the part of the student. Prerequisite: 212. Winter and Spring. Credit 5(5-0).
- 214. Writing for Students in Agriculture.** Style, principles, and practice in writing agricultural reports, newspaper articles, and papers for public delivery. Vocabulary building, extensive reading in agricultural literature; term report on selected subject. Prerequisite: English 213. Winter. Credit 3(3-0).
- 217. Special Reading.** This is a special reading course offered to those students who have reading disabilities. Persons registered will have the opportunity to increase their rate of reading and their abilities to comprehend thought from the printed page through vocabulary study and a board reading program. All students are recommended to take this whose average in English 211, 212, and 213 was below C. Credit 2 (0-4).
- 231. Journalism.** Theoretical and practical work in recognizing, gathering, and writing news. While primary attention is given to the development of journalistic technique, there is considerable drill on the fundamental principles of composition. Prerequisite: English 213. Credit 3(3-0).
- 232. Advanced Reading.** This course is designed to acquaint prospective teachers with the field of young peoples literature—fiction, non fiction and contemporary events. Attention will also be paid to methods of teaching reading in the secondary schools. Credit 5(5-0).
- 236. Argumentation and Debating.** A study of the principles of argumentation. The course consists of discussions, lectures, and classroom debates, all of which procedures are preliminary to public debates. Prerequisite: Eng. 213. Credit 3(2-2).
- 237. Development of Modern English.** A study of the origin and development of the English language with emphasis on the present status of modern American English. Spring. Credit 3(3-0).

**244. Advanced Composition.** This course is intended to strengthen the techniques of writing developed in English 211, 212 and 213. The student will not only strengthen and polish his written expression, but he will have opportunity to practice on the more specialized forms of writing that appeal to him. It is open to any student who has completed English 213 with a grade of C or above. It is especially recommended for English majors and minors and persons who plan to become vocational agricultural teachers, home demonstration agents, etc. Credit 3(1-4).

**245. Review for English Majors and Minors.** This course is planned particularly for seniors who desire personal attention in further mastering the fundamentals of English composition and in becoming more conversant with the general field of English and American literature. Required of all Senior English Majors and Minors who fail the Comprehensive Examination. Winter. Credit 0(2-0).

### Speech and Expression

**224. Voice and Speech Improvement.** Drill and exercises to improve speech and voice in the classroom, at social affairs, in club meetings, in vocational pursuits, and in other everyday speech situations. Any quarter. Credit 2(1-2).

**225. Public Speaking.** A study of the basic attributes and the fundamental processes of speech. Practice in speech organization and delivery. Prerequisite: Eng. 224. Credit 2(1-2).

**227. Oral Interpretation.** Training in expressive audience reading of selections from classical, modern, and current literature. Credit 2(1-2).

**228. Acting:** Its theory and practice. A laboratory course designed to develop skill in voice, diction, and pantomime by means of readings, monologues, skits, and short plays for school and community. Practical experience in the major A. and T. dramatic productions. Credit 3(1-4).

**229. Parliamentary Procedure.** Theory and practice in the rules and customs governing organization and proceedings of deliberative bodies. Prerequisite: English 213. Winter or Spring. Credit 1(0-2).

### Literature

**215. Negro Literature.** A survey of all important Negro writers from pre-Civil War days to the present. Readings, reports (oral and written), and one special topic. Spring. Credit 3(3-0).

**220. American Literature.** A study of literary, social and political

ideals of America as reflected in outstanding writings. Prerequisite: Eng. 213. Fall or Winter. Credit 5(5-0).

**221. American Literature.** A continuation course in American Literature. Audio-visual aids shall be used. Prerequisite: English 213. Winter or Spring. Credit 5(5-0).

**222. Development of English Literature.** Reading in English Literature from the beginnings to 1700. Study of the growth of ideas and institutions, of the types of literature, and of the great personalities who have contributed most to the literature. Lectures. Reports. Prerequisite: Eng. 213. Fall and Spring. Credit 3(3-0).

**223. Development of English Literature.** English Literature from 1700 to the twentieth century. Audio-visual aids shall be used. Lectures. Reports. Prerequisite: Eng. 213. Winter. Credit 5(5-0).

**226. Dramatic Literature.** A survey of dramatic literature. Origin of the drama; readings in the Greek, classical French, Elizabethan, and contemporary drama. Fall. Credit 3(3-0).

**234. Shakespeare.** A detailed, chronological study of twelve principal plays taken from all four of the periods of dramatic production. Lectures, reports, one long paper. Prerequisite: 20 hours of English. Fall. Credit 5(5-0).

**239. Chaucer, Shakespeare, Milton.** The outstanding works of these writers are studied with a view to understanding their chief contributions to the language and literature of England. Some attention will be given to a background study of the Middle English, Elizabethan, and Puritan Periods. Prerequisite: English 213. Credit 5(5-0).

**241. Eighteenth Century Literature.** Readings in the poetry and prose of the century. Lectures, collateral assignments, reports, and one long paper. Prerequisite: 20 hours of English. Credit 3(3-0).

**242. The Romantic Era.** The principles and ideas of Romanticism as expressed in the works of the principal English writers of poetry and prose from 1798 to 1823. Term report. Prerequisite: 20 hours of English. Credit 3(3-0).

**243. The Victorian Era.** Readings in the works of the principal English writers of the Victorian Age. Term report. Prerequisite: 20 hours of English. Credit 3(3-0).



## DEPARTMENT OF ART

### GENERAL STATEMENT

The objectives of this course are as follows:

- (a) To discover and develop the latent talent of students for artistic expression and lay a foundation for careers as creative artists.
- (b) To meet a growing demand for especially trained art teachers in our public schools and colleges.
- (c) To develop tastes and discriminations in the choice of materials used in everyday life which will find expression in more beautiful homes and gardens, schools, parks, playgrounds and other public works.
- (d) To provide a culture leading to a more worthy use of leisure time.

All students wishing to major in art must pass a special examination or submit some of their art work for appraisal. Students in other departments desiring special work in art may by arrangement with the instructor take any course listed under art.

### CURRICULUM OF ART

#### Freshman Year

See Curriculum First Year Mechanic Arts, Page 54.

NOTE: Students majoring in Art will take Hist. 213 during freshman year.

#### Sophomore Year

|                                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------------------------|-------------|---------------|---------------|
| English Elective .....                   | .....       | .....         | 5(5-0)        |
| French 214, 215 .....                    | 5(5-0)      | 5(5-0)        | .....         |
| Modern European History 211 or 212 ..... | 5(5-0)      | .....         | .....         |
| Freehand Drawing 311, 312, 313 .....     | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Art Appreciation 314, 315, 316 .....     | 2(2-0)      | 2(2-0)        | 2(2-0)        |
| Military Science 221, 222, 223 .....     | 2(3-2)      | 2(3-2)        | 2(2-3)        |
| Prin. of Phy. Ed. Phy. Ed. 231 .....     | .....       | .....         | 3(3-0)        |
| Prin. of Sec. Ed. 237, 238 .....         | .....       | 3(3-0)        | 3(3-0)        |
| Art 317, 318, 319 Color and Design ..... | 3(0-6)      | 3(0-6)        | 3(0-6)        |
|                                          | 20 hrs.     | 18 hrs.       | 21 hrs.       |

#### Junior Year

|                                    | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------------------|-------------|---------------|---------------|
| Educational Psychology 231 .....   | .....       | .....         | 5(5-0)        |
| American History 221 or 222 .....  | 5(5-0)      | .....         | .....         |
| Mediaeval History 232 .....        | .....       | 5(5-0)        | .....         |
| Commercial Art 321, 322, 323 ..... | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Portrait, Art 334, 335, 336 .....  | 2(0-4)      | 2(0-4)        | 2(0-4)        |

|                                      |               |               |               |
|--------------------------------------|---------------|---------------|---------------|
| Art Appreciation 327, 328, 329 ..... | 2(2-0)        | 2(2-0)        | 2(2-0)        |
| Ceramics 337, 338, 339 .....         | 3(0-6)        | 3(0-6)        | 3(0-6)        |
| Composition Art 331, 332, 333 .....  | 3(1-4)        | 3(1-4)        | 3(1-4)        |
|                                      | <hr/> 18 hrs. | <hr/> 18 hrs. | <hr/> 18 hrs. |

**Senior Year**

|                                       | <i>Fall</i>   | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------|---------------|---------------|---------------|
| History 231 .....                     | 5(5-0)        | .....         | .....         |
| Figure Drawing, Art 341, 342 .....    | 3(0-6)        | 3(0-6)        | .....         |
| Oil Painting, Art 347, 348, 349 ..... | 3(0-6)        | 3(0-6)        | 3(0-6)        |
| Electives .....                       | 6             | 11            | 14            |
|                                       | <hr/> 17 hrs. | <hr/> 17 hrs. | <hr/> 17 hrs. |

**Suggested Electives**

History of Architecture 324, 325, 326.  
 Education 236, 331, 221, 248, 251.

**COURSES IN ART**

- 311. Freehand Drawing.** This course is a study of the fundamental principles of drawing. As a useful mode of visual expression selected problems involving basic considerations of line, mass and color are presented for analysis and laboratory practice. Credit 3(0-6).
- 312. Lettering and Poster Design.** This course is a comprehensive study of the art of lettering with drawlet pens, the principles of the layout, poster construction and general advertizing. Credit 3(0-6).
- 313. Water Color Painting.** This course aims to give a working knowledge of color both from the standpoint of its use and enjoyment—various theories of color are analyzed along with drills on the techniques of water color painting. Credit 3(0-6). Prerequisite: 311.
- 314. Art Appreciation.** This is an introductory course to the study of fine arts. Basic qualities of various forms of artistic expression are explained. Emphasis is placed on the application of art principles in everyday life. Credit 2(2-0).
- 315. Art Appreciation.** This course is a study of the art historic periods. Representative examples of the architecture and sculpture of ancient Egypt, Greece and Rome are selected for analysis, interpretations and comparisons. Credit 2(2-0).

- 316. Art Appreciation.** This course traces the development of the art of painting from the Italian Primitives through the English School by means of analysis and comparisons of works of representative painters. Credit 2(2-0).
- 317. Color & Design.** This course deals with the theory of color and principles of pure design as applied in Textiles. The development of decorative motifs, all-over patterns, sources of design. Fall. Credit 3(1-5).
- 318. Intermediate Design.** This course is a continuation of 317 with greater emphasis on the development of the student's creative ability. Introduction of block printing and stenciling. Credit 3(1-5).
- 319.** This course is a continuation of 318 with emphasis on applying basic principles to the production of industrial products work with looms, hand weaving, leather work and textile dyeing. Credit 3(0-6).
- 320. Figure Drawing.** This course is a study of the human figure with emphasis on Anatomy, body structure and human proportions, draped and undraped figures at rest and in action. Spring. Credit 3(1-5).
- 321. Commercial Art.** This is an advanced course in Freehand Drawing—with considerable emphasis on the techniques of mediums used in commercial art—laboratory drills in sketching and rendering in pen and ink and wash. Prerequisite: 313 Credit 3(0-6).
- 322. Commercial Art.** This is a continuation of 321. In this course water color and show-card color are used with continued drills in laboratory techniques suitable for reproduction—cartooning. Prerequisite: 321. Credit 3(0-6).
- 323. Commercial Art.** This course aims at guiding the student towards such specific branches of commercial art as book jacket designs—layouts for newspapers, designs for calendars, greeting cards, magazine illustration posters, etc. Prerequisite: 322. Credit 3(0-6).
- 324. History of Architecture.** This first course is a study of the beginning of Ancient and Classical Architecture. Credit 5(5-0).
- 325. History of Architecture.** This course is a continuation of the first course including Middle Ages and Renaissance. Prerequisite: Art 324. Credit 5(5-0).
- 326. History of Architecture.** A study of modern architecture is covered in this course with particular emphasis placed on modern housing. Prerequisite: Art 325. Credit 5(5-0).

- 327. Art Appreciation.** This course is a study of the arts in America. Beginning with a study of the crafts and continuing through American Architecture, representative personalities and their works are studied, analyzed and interpreted. Credit 2(2-0).
- 328. Art Appreciation.** This course traces the development of the art of sculpture in America from the revolutionary period to the present era. Credit 2(2-0).
- 329. Art Appreciation.** This course traces the development of the art of painting in America from the Revolutionary period to the present era. Emphasis is placed on analysis and interpretation of representative works. Credit 2(2-0).
- 331. Composition.** This course is a study of the basic principles of pictorial composition or designing the picture with definite consideration of the requirements of commercial art, drills in abstract arrangements of dark and light. Credit 2(0-4).
- 332. Composition.** This course is a continuation of 331 with emphasis on the study of accessories, figure arrangement and expression. Prerequisite: 331. Credit 2(0-4).
- 333. Composition.** This course is a continuation of 332 with the introduction of a wide range of assigned topics or themes to be illustrated with original pictures. Emphasis is placed on originality, design, and expression. Credit 2(0-4).
- 334. Portrait.** This course consists of drawing from the antique or cast drawing as a foundation for drawing from life. Basic considerations in modeling in full scale of values are studied and practiced: medium, charcoal. Credit 2(0-4).
- 335. Portrait.** This course is a study of the techniques in the reproduction of photographs in charcoal and pastel. Emphasis on laboratory techniques. Prerequisite: 334. Credit 2(0-4).
- 336. Portrait.** This course is a study of the technique of portraiture. Studies are made from living models with emphasis on composition and expression. Prerequisite: 335. Credit 2(0-4).
- 337. Elementary Ceramics.** Art principles applied in the field of Ceramics. Study of the historical development, materials and processes, structural forms, simple exercises in modeling in clay. Supplementary reading and laboratory practice. Fall. Credit 3(1-5).
- 338. Ceramics.** This course is a continuation of 337. Emphasis is placed on laboratory techniques, casting, approved practices and procedures. Winter. Credit 3(1-5).

- 339—Ceramics.** In this course much attention is devoted to modern methods of production, decorative processes in relation to glazing and firing. Types of driers and kilns used in industrial production, production of ceramic wares. Spring. Credit 3(1-5).
- 341. Figure Drawing.** This course is a study of the human figure from life. A study of the full length figure with emphasis on proportion, action and modeling in full values. Credit 3 (0-6).
- 342. Figure Drawing.** This course is a continuation of 341 with emphasis on laboratory techniques in drawing and painting from life. Credit 3(0-6).
- 347. Oil Painting.** This course is an advanced study of oil painting. Emphasis is placed on the technique of oil painting, still life, landscapes and portrait. Credit 3(0-6).
- 348. Oil Painting.** This course is a continuation of 347 with emphasis on the development of original themes. Prerequisite 347. Credit 3(0-6).
- 349. Oil Painting.** This course is a continuation of 348 with emphasis on originality of subjects and treatment. Credit 3(0-6).

---

## DEPARTMENT OF FOREIGN LANGUAGES

The department aims to develop reasonable facility in the reading, speaking, and writing of the principal modern foreign languages. It endeavors, furthermore, to lead students to an intelligent appreciation of outstanding literary masterpieces, to develop a better knowledge of continental contributions to modern culture, and to create a spirit of understanding that will result in proper attitudes toward different national groups.

The following courses are suggested as majors and minors and are recommended for those interested in graduate study, research, government service, or commerce.

For Freshman and Sophomore Courses, see page 58.

### Major in Foreign Languages

#### Junior Year

|                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------|-------------|---------------|---------------|
| French, 214, 215, 216 ..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| French 217, 218, 219 .....  | 3(3-0)      | 5(5-0)        | 5(5-0)        |
| Spanish 211, 212, 213 ..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Minor or Electives .....    | 5(5-0)      | 3(3-0)        | 3(3-0)        |



**Senior Year**

|                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------|-------------|---------------|---------------|
| French 221, 222, 223 .....  | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| French 243, 245, 247 .....  | 5(5-0)      | 5(5-0)        | 3(3-0)        |
| Spanish 214, 215, 216 ..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Minor or Electives .....    | 3(3-0)      | 3(3-0)        | 3(3-0)        |

**COURSES IN FRENCH**

**211. Elementary French.** Special attention is given to gaining a complete knowledge of the essentials of grammar and pronunciation, to the acquisition of a vocabulary, and to elementary composition. Required of students who do not pass the French Placement Test. Fall. Credit 5(5-0).

**212. Elementary French.** This course continues the work in grammar and pronunciation. Conversation and dictation are encouraged. Winter. Credit 5(5-0).

**213. Elementary French.** Practice in oral and written composition is continued. The early acquisition of a taste for advanced French is stimulated through the reading, translation, and interpretation of easy modern French prose. Spring. Credit 5(5-0).

**214. Intermediate French.** This course is open to students who pass the French Placement Test based on two units of high school French or college French 211, 212, 213. A brief review of grammar is followed by practice in pronunciation. Fall. Credit 5(5-0).

**215. Intermediate French.** The reading of French plays is encouraged, and the ability to write and converse in French is further developed. Winter. Credit 5(5-0).

**216. Phonetics.** This course is intended for students majoring and minoring in French. It is also recommended for those who wish to improve their pronunciation of the language. Spring. Credit 5(5-0).

**217. French Literature of the Middle Ages and the Renaissance.** A general introduction to the more advanced study of French literature. Its purpose is to give a clear idea of the great periods and the main tendencies in the history of French thought and letters from the Middle Ages to the Seventeenth Century. Fall. Credit 3(3-0).

**\*218. Advanced French Composition.** An advanced course in oral and written self-expression in French. Special attention is given to vocabulary building, free composition, and conversation, prepared and improvised, covering the many phases of everyday activities. Spring. Credit 5(5-0).

- \*219. Advanced French Conversation.** A course for students having some experience in written French. It aims to improve oral and aural conversation. Small groups will be arranged for practice in French conversation. Spring. Credit 5(5-0).
- 220. Advanced French Grammar and Reading.** The object of this course is to give the student practical training in the use of advanced French grammar and reading. It is conducted largely in French. Spring. Credit 5(5-0).
- 221. French Literature of the Seventeenth Century.** This course presents Classicism through the masterpieces of Corneille, Racine, Moliere and other authors of the "Golden Period" in French letters. Conducted in French. Fall. Credit 5(5-0).
- 222. French Literature of the Eighteenth Century.** The object of this course is to study in particular the life and works of Montesquieu, Voltaire, Rousseau, and the Encyclopedists. Conducted in French. Winter. Credit 5(5-0).
- 223. French Literature of the Nineteenth Century.** The object of this course is to study the great literary currents of the nineteenth century, romanticism and realism. Spring. Credit 5(5-0).
- 243. Modern and Contemporary French Literature.** This course deals with the chief writers and literary currents of the time. Lectures and outside readings. Credit 3(3-0).
- 245. French Civilization.** A general survey of the history of France, with emphasis on its social, political and economic developments designed to give the student an understanding of present conditions and events. A detailed study is made of such French institutions as art, music and education. This course is also offered in conjunction with reports on collateral readings. Credit 5(5-0).
- 246. French Seminar. Thesis Problem.** Open only to seniors majoring in Foreign language. Credit 3(3-0).
- 247. French for Prospective Teachers.** This course is elective for seniors with the consent of the instructor. A brief review of the principles of grammar is followed by an intensive drill in phonetics. Aims, problems, methods, and texts are discussed. Spring. Credit 3(3-0).

### COURSES IN SPANISH

- 211. Elementary Spanish.** The primary object of this course is to secure the understanding of easy Spanish, written and spoken. Much attention is given to the essentials of grammar and pronunciation. Fall. Credit 5(5-0).

---

\* Offered in alternate years. Not offered in 1947-48.

- 211. Elementary Spanish.** This course continues the work in grammar and pronunciation. Prose reading is encouraged by exercises in vocabulary building. Winter. Credit 5(5-0).
- 213. Elementary Spanish.** Attention is given to advanced elementary grammar. Prose reading continues and a taste for advanced Spanish is stimulated through the reading of poetry.
- 214. Intermediate Spanish.** This course is open to students who have completed two units of high school Spanish or college Spanish 211, 212, 213. Thorough review of Spanish syntax with emphasis on its essential difficulties. Fall. Credit 5(5-0).
- 215. Intermediate Spanish.** Practice in writing idiomatic Spanish in translations and free compositions. Readings from modern authors. Winter. Credit 5(5-0).
- 216. Survey of Spanish Literature.** A survey of the most important movement, writers, and works from the Middle Ages up to the present time. Spring. Credit 5(5-0).
- 

## DEPARTMENT OF HOME ECONOMICS

The program as outlined below is arranged to meet the needs of the following groups of students: those who wish to teach, those who wish to enter graduate courses leading to technical or professional work, and those who wish to apply their knowledge to various problems of home life, or in fields of industry and social service in which an understanding of home economics subjects is essential to intelligent action.

Students who specifically qualify in personality, desire and ability, for work with The Cooperative Agriculture Extension Service, will be guided in selecting courses necessary for proper preparation for that work.

The training given is as varied as it is broad. It includes a knowledge of laws of health; an understanding of the sanitary requirements of the home; the study of values, both absolute and relative, of the various articles used in the home; the wise expenditure of money, time, and energy; the scientific principles underlying the selection and preparation of food; the right care of children; and the ability to secure efficient service from others.

(For dressmaking trade courses, see page 180.)

A four-year college course in home economics will lead to a B.S. degree in Home Economics.

# **COURSES IN HOME ECONOMICS LEADING TO THE DEGREE OF B.S.**

## **Freshman Year**

|                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------|-------------|---------------|---------------|
| English Composition, Eng. 211, 212, 213 .... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| General Chemistry, Chem. 111, 112, 113....   | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Negro History, Hist. 213.....                |             |               | 5(5-0)        |
| Clothing 123 .....                           |             |               | 3(2-2)        |
| Food Principles, Foods 121 .....             |             |               | 4(2-3)        |
| Elementary Clothing, Clothing 111 .....      | 3(1-4)      |               |               |
| General Psychology, Ed. 221 .....            |             | 5(5-0)        |               |
| Art Appreciation 314, 315, 316.....          | 2(0-2)      | 2(0-2)        | 2(0-2)        |
| Physical Education .....                     | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Home Economics Orientation 111 .....         | 3(3-0)      |               |               |
| Freehand Drawing, Art 311, 312 .....         | 3(0-6)      | 3(0-6)        |               |

## **Sophomore Year**

|                                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------------------------|-------------|---------------|---------------|
| English .....                                                |             | 5(5-0)        |               |
| Education 231 .....                                          |             |               | 5(5-0)        |
| Physiology, Zool. 122 .....                                  |             | 5(3-4)        |               |
| Meal Planning and Table Service,<br>Foods 123 .....          |             |               | 4(2-4)        |
| Design and Construction, Cloth. 112 .....                    |             | 3(1-4)        |               |
| Consumer Buymanship and<br>Family Economics, H. A. 123 ..... |             | 3(3-0)        |               |
| Sociology 231 or Economics 231 .....                         | 5(5-0)      |               |               |
| Bacteriology, Bact. 123 .....                                |             |               | 5(4-3)        |
| Art Appreciation, Art 327, 328, 329 .....                    | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Physical Education .....                                     | 1(0-2)      | 1(0-2)        | 1(0-2)        |

## **Junior Year**

|                                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------------------------|-------------|---------------|---------------|
| Physics 311 .....                                            |             | 5(4-2)        |               |
| Education 237 .....                                          |             |               | 3(3-0)        |
| Housing, H. A. 132 .....                                     |             | 3(2-0)        |               |
| Principles of Nutrition, Foods 141 .....                     |             | 4(2-4)        |               |
| Child Development, H. A. 131A .....                          | 4(3-2)      |               |               |
| U. S. History, Hist. 221 or 222 .....                        |             | 5(5-0)        |               |
| Family Relationships, H. A. 132 or<br>Family, Soc. 241 ..... |             | 3(3-0)        |               |
| Nursery School Education H. A. 131B .....                    | 4(2-4)      |               | 4(2-4)        |

**Senior Year**

|                                                                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------------------------------|-------------|---------------|---------------|
| Clothing Construction, Clo. 143.....                                 |             | 3(1-4)        | .....         |
| Methods of Teaching Home Economics,<br>Ed. 152A .....                | 3(3-0)      | .....         | .....         |
| Organization of Home Economics Courses<br>in Schools, Ed. 152B ..... | 3(3-0)      | .....         | .....         |
| Supervised Practice Teaching, Ed. 153 .....                          |             | 5 hrs. cr.    | .....         |
| Government, Pol. Sc. 231 or 232 .....                                | 5(5-0)      | .....         | .....         |
| Home Management Residence, H. A. 142 ..                              |             | 3(0-8)        | 3(0-8)        |
| Family Health, H. A. 143 .....                                       |             |               | 2(1-2)        |
| Electives .....                                                      |             |               | .....         |

**Required Courses**

**H. E. 111. Orientation Course.** This course is concerned with aiding in the solution of the immediate problems of personal and group living as the freshman girls find them at college. Required of all freshman girls. Credit 3(3-0).

**FOODS AND NUTRITION**

**Foods 121. Food Principles.** Food selection based on personal needs, techniques of food preparation, preservation and care in the home. Prerequisite: General Chemistry. Credit 4(2-4).

**Foods 123. Meal Planning and Table Service.** Planning and serving of adequate attractive low cost meals, and some emphasis on formal meals. Consumer buying problems will be included. Prerequisite: Foods 121. Credit 4(2-4).

**Foods 141. Principles of Nutrition.** A study of food needs for the various ages, and planning diets for family groups based on the needs. Prerequisites: Food 121, Organic Chemistry, Physiology. Credit 4(2-4).

**CLOTHING**

**Clothing 111. Elementary Clothing.** This course deals with the fundamental processes of clothing construction, a study of the use of the Commercial pattern and problems in wardrobe planning. Credit 3(1-4).

**Clothing 112.** The study of art in relation to clothing, construction; problems in repairing and remodeling and in the selection of clothing for the family. Credit 3(1-4).

**Clothing 123. Textiles.** A study of textile fabrics, their source, production, characteristics and identification tests. The social, economic, and hygienic aspects of and the care of clothing and household textiles. Credit 3(2-2).



**Clothing 143.** Problems in pattern design and construction. Credit 3(1-4).

### HOME IMPROVEMENT UNITS

#### **H. I. 142. Home Improvement Units.**

Unit I. Floriculture.

Unit II. Home Gardening.

Unit III. Poultry.

Unit IV. Applied Electricity in the Home.

Unit V. General Woodwork for the Home.

The course is planned to give students fundamental principles and experiences in the above units.

Educational programs for training in household employment are, for the most part, short, intensive courses designed to give training in those phases of work which employees are most frequently called upon to do.

Each unit in the course listed above may be taken separately, and may be completed in approximately two weeks. Credit 1(0-5).

### HOME ADMINISTRATION

#### Home Management

**H. A. 123. Consumer Buymanship and Family Economics.** This course deals with developing attitudes and habits in consumer-buying and management of family resources. Credit. 3(3-0).

**H. A. 112. Housing.** Planning, selecting and equipping the house, with emphasis on family needs, income, and artistic arrangement. Credit 3(3-0).

**H. A. 134. Residence.** Experience in applying basic principles in Home Economics to the management of the home and the development of proper attitudes essential to family and group living. Credit 3(3-0).

#### Family

**H. A. 132. Family Relationships.** A course designed to develop an objective point of view of home life in order to give better ability to attack them thereby improving family and community life. Credit 3(3-0). Sociology 241 may be substituted. Sociology 241 may be substituted.

**H. A. 131-A. Child Development.** Study of the physical, mental, and social growth of the child up to five years. Observation and care of children in nursery school are required. Prerequisites: Education 221-231. Credit 4(3-2).

**H. A. 143. Family Health.** Problems in family, personal and community health. Credit 2(1-2).

**H. A. 131-B. Nursery School Education.** Further study of the mental and social growth of the young child with emphasis on observational reports and child guidance. A laboratory period in nursery school is required. Prerequisites: Education 221, Education 231, H. A. Credit 4(2-4).

### ELECTIVES IN HOME ECONOMICS

**Art 112. Costume Designing.** A study of the principles as they apply to dress, consideration of individual requirements, and a brief survey of historic costume. Winter. Credit 3(1-4).

**Foods 142. Special Problems in Foods.** Problems in working with such classes of foods as might be of specific interest to the individual student. Emphasis on developing skill in production in the line chosen. Prerequisites: All required foods courses. Credit 4(2-4).

**Foods 114. Nutrition for Infants and Young Children.** A study of the nutritional needs and planning and preparing of meals for this specific age level. Credit 3(1-4).

**Clothing 114. Construction.** A vocational course designed to teach fundamental skills in sewing and to solve special problems of clothing. Credit 3(1-4).

**Clothing 115. Construction.** A vocational course designed for the individual needs in construction, selection and renovation. Prerequisite: Clothing 114. Credit 3(1-4) or 6(2-8).

**Clothing 121. Home Crafts.** The course provides practical experience in upholstering, making slip covers, draperies. Credit 3(1-4).

**Clothing 124. Home Crafts.** The course aims to develop appreciation for and some ability to create attractive homework for the home, such as batiking, blockprinting, stenciling. Credit 3(1-4).

**H. A. 111. Practical Nursing of Young Children.** Child care and training with emphasis on the nature of the young child and its needs. Experience with children in the laboratory period in nursery school is required. Credit 3(3-3).

## DEPARTMENT OF INDUSTRIAL EDUCATION

### TEACHER-TRAINING FOR INDUSTRIAL EDUCATION

The public schools of North Carolina, like the public schools of many states, are in constant need of securing qualified teachers of industrial education. To meet the needs, A. and T. College offers training in these fields of concentration. The prospective trade teacher or teacher of industrial arts receives general college training in addition to specific training in the manipulative skills of a trade. In addition, he is given instruction in shop organization, shop management, and in the essential professional courses for teachers.

The fields of concentration in teacher-training for industrial education are automobile mechanics, cabinet making and upholstery, carpentry, masonry, mechanical drawing, plumbing and steamfitting, shoe repairing, and tailoring.

### CURRICULUM FOR INDUSTRIAL ARTS

#### Freshman Year

(See first year's Curriculum of Mechanic Arts, page 54)

#### Sophomore Year

|                                               | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------|-------------|---------------|---------------|
| Physics 321, 322, 323.....                    | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| Advanced Woodwork, I. A. 321, 322, 323 ..     | 5(0-10)     | 5(0-10)       | 5(0-10)       |
| Vocational Drawing, I. A. 331, 332, 333 ....  | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Principles of Physical Ed. Phys. Ed. 231 .... | .....       | .....         | 3(2 2)        |
| Military Science, M.S. 221, 222, 223 .....    | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Materials of Construction, I. A. 324 .....    | 3(3-0)      | .....         | .....         |
| Comprehensive Shop Projects, I. A. 348 ....   | .....       | 3(0-6)        | .....         |
| Machine Shop Practice, M. E. 328, 329 ....    | 2(0-4)      | 2(0-4)        | .....         |
| General Metal Work, I. A. 329.....            | .....       | .....         | 2(0-4)        |
|                                               | <hr/>       | <hr/>         | <hr/>         |
|                                               | 20 Hrs.     | 20 Hrs.       | 20 Hrs.       |

#### Junior Year

|                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------------------------|-------------|---------------|---------------|
| Woodturning, Upholstery, Finishing I. A.   |             |               |               |
| 338, 339, 340 .....                        | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Freehand Drawing, Art 311, 312, 313 .....  | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Vocational Education, Trade Analysis Ed.   |             |               |               |
| 331, 332 .....                             | .....       | 3(3-0)        | 3(3-0)        |
| Rural Sociology, R. Soc. 111 .....         | 3(3-0)      | .....         | .....         |
| Principles of Economics, Econ. 231 .....   | 5(5-0)      | .....         | .....         |
| Educational Psychology, Ed. 231 .....      | .....       | .....         | 5(5-0)        |
| Public Speaking, Eng. 224 .....            | .....       | 3(3-0)        | .....         |
| Principles of Secondary Ed., Ed. 237 ..... | 3(3-0)      | .....         | .....         |

|                                |                     |                       |
|--------------------------------|---------------------|-----------------------|
| Labor Problem, Econ. 234 ..... | .....               | 5(5-0)                |
| Masonry, 311, 321 .....        | 3(0-6) 3(0-6) ..... |                       |
| Welding 311 .....              | 3(0-6) .....        |                       |
|                                | <hr/> 20 Hrs.       | <hr/> 18 Hrs. 19 Hrs. |

**Senior Year**

|                                                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------------------------------------|-------------|---------------|---------------|
| Electricity, I. A., 326, 327, 328.....                                     | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Auto Mechanics, I. A. 325 .....                                            | .....       | 3(0-6)        | .....         |
| Principles of Sociology Soc. 231 .....                                     | 5(5-0)      | .....         | .....         |
| Materials, Equipment, and Shop Management,<br>I. A. 347 .....              | .....       | 3(3-0)        | .....         |
| Observation and Practice Teaching in<br>Industrial Education, Ed. 344..... | .....       | .....         | 5(5-0)        |
| History of Ind. Ed. I. A. 341 .....                                        | 3(3-0)      | .....         | .....         |
| Evaluation and Measurements Ed. 236.....                                   | .....       | .....         | 5(5-0)        |
| Vocational Guidance Ed. 341 .....                                          | 3(3-0)      | .....         | .....         |
| Methods of Teaching Industrial<br>Education Ed. 343.....                   | .....       | 5(5-0)        | .....         |
| Working Drawings, A. E. 334 .....                                          | 3(3-0)      | .....         | .....         |
| Carpentry, 313, 314 .....                                                  | 3(0-6)      | 3(0-6)        | .....         |
| Timber Construction, A. E. 335 .....                                       | .....       | 3(0-6)        | .....         |
| Masonry Construction, A. E. 336 .....                                      | .....       | .....         | 3(0-6)        |
|                                                                            | <hr/> 20    | <hr/> 20      | <hr/> 16      |

**Suggested Electives**

|                                                                       |        |
|-----------------------------------------------------------------------|--------|
| Mechanical Drawing, 323, 324, 325 .....                               | 3 Hrs. |
| Carpentry 312 .....                                                   | 3 Hrs. |
| Cabinet Making 312, 313 .....                                         | 3 Hrs. |
| Cabinet Making 314 .....                                              | 3 Hrs. |
| Wood Turning, Upholstering and<br>Finishing 338-A, 339-A, 340-A ..... | 3 Hrs. |

**CURRICULUM FOR TRADE TEACHERS****Freshman Year**

(See first year's Curriculum of Mechanical Arts, page 54.)

**Sophomore Year**

|                                               | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------|-------------|---------------|---------------|
| **Industrial Lab., C. I., 321, 322, 323 ..... | 6(1-10)     | 8(1-14)       | 8(1-14)       |
| Physics 321, 322, 323 .....                   | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| Military Science 221, 222, 223 .....          | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| *Mechanical Drawing 323, 324, 325 .....       | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Materials of Construction 324 .....           | 3(3-0)      | .....         | .....         |

|                                                   |        |        |        |
|---------------------------------------------------|--------|--------|--------|
| *Surveying, Math. 324 .....                       | .....  | .....  | 3(1-4) |
| ***Machine Shop Practice, M. E.<br>328, 329 ..... | 2(0-4) | 2(0-4) | .....  |

**Junior Year**

|                                                   | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------------|-------------|---------------|---------------|
| Industrial Lab. C. I. 331, 332, 333 .....         | 7 (1-12)    | 6(1-10)       | 6(1-10)       |
| Freehand Drawing, Art 311, 312, 313 .....         | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Applied Mathematics, Math. 335,<br>336, 337 ..... | .....       | 3(3-0)        | 3(3-0)        |
| *Heating and Ventilating, M. E. 334, 335 ..       | 3(3-0)      | 3(3-0)        | .....         |
| Educational Psychology, Ed. 231 .....             | 5(5-0)      | .....         | .....         |
| Vocational Education, Ed. 331 .....               | .....       | 3(3-0)        | .....         |
| Trade Analysis, Ed. 332 .....                     | .....       | .....         | 3(3-0)        |
| Electric Wiring, I. A. 326 .....                  | .....       | .....         | 3(0-6)        |
| Rural Sociology, R. So. 111 .....                 | 3(3-0)      | .....         | .....         |
| Public Speaking, Eng. 224 .....                   | .....       | 3(3-0)        | .....         |
| Principles of Secondary Ed. 237.....              | .....       | .....         | 3(3-0)        |
|                                                   | 21          | 21            | 21            |

**Senior Year**

|                                                                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------------------------------------|-------------|---------------|---------------|
| Industrial Lab., C. I., 341, 342, 343 .....                                | 5(0-10)     | 6(1-10)       | 6(1-10)*      |
| Economics, Econ. 231, 234 .....                                            | 5(5-0)      | .....         | 5(5-0)        |
| Principles of Sociology, Soc. 231 .....                                    | 5(5-0)      | .....         | .....         |
| Materials, Equipment, and Shop<br>Management, I. A. 347 .....              | .....       | 3(3-0)        | .....         |
| Vocational Guidance, Ed. 341 .....                                         | 3(3-0)      | .....         | .....         |
| Methods of Teaching Industrial<br>Education, Ed. 343.....                  | .....       | 5(5-0)        | .....         |
| Observation and Practice Teaching in<br>Industrial Education, Ed. 344..... | .....       | .....         | 5(5-0)        |
| Working Drawings, A. E. 334.....                                           | 3(3-0)      | .....         | .....         |
| Timber Construction, A. E. 335 .....                                       | .....       | 3(3-0)        | .....         |
| Masonry Construction, A. E. 336 .....                                      | .....       | .....         | 3(3-0)        |
| Estimating, C. I. 344 .....                                                | .....       | 3(3-0)        | .....         |
| Evaluation and Measurements, Ed. 236.....                                  | .....       | .....         | 5(5-0)        |

**CURRICULUM FOR COMMERCIAL INDUSTRIES**

This course is designed to meet the needs of students who desire to have practical experience and knowledge of the subject-matter as well as the technical training required for effective service in such vocations as automobile mechanics, carpentry, cabinet making and upholstery, masonry, mechanical drawing, plumbing, shoe repairing, tailoring and welding, etc.



These fields of specialization will pursue the following curriculum.

## CURRICULUM

### Freshman Year

(See first year's Curriculum of Mechanic Arts, page 00.)

### Sophomore Year

|                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------|-------------|---------------|---------------|
| **Industrial Lab., C. I. 321, 322, 323 ..... | 5 Hrs.      | 6 Hrs.        | 6 Hrs.        |
| Physics, 321, 322, 323 .....                 | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| Military Science, M.S. 221, 222, 223 .....   | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Mech. Drawing, M.E. 323, 324, 325 .....      | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Machine Shop Practice, M. E. 328, 329 .....  | 2(0-4)      | 2(0-4)        | .....         |
| Surveying, Math. 324 .....                   | .....       | .....         | 3(1-4)        |
| Materials of Construction, I. A. 324 .....   | 3(3-0)      | .....         | .....         |
|                                              | <hr/> 20    | <hr/> 18      | <hr/> 19      |

### Junior Year

|                                               | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------|-------------|---------------|---------------|
| **Industrial Lab., C. I., 331, 332, 333 ..... | 6 Hrs.      | 6 Hrs.        | 8 Hrs.        |
| Freehand Drawing, Art 311, 312, 313 .....     | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Applied Math., C. I., 335, 336 .....          | .....       | 3(3-0)        | 3(3-0)        |
| Heating and Ventilating, M. E. 334, 335 ...   | 3(3-0)      | 3(3-0)        | .....         |
| Business Correspondence, B.A. 339 .....       | 5(5-0)      | .....         | .....         |
| Public Speaking, Eng. 224 .....               | .....       | 3(3-0)        | .....         |
| Electric Wiring, I. A. 326 .....              | .....       | .....         | 3(0-6)        |
|                                               | <hr/> 17    | <hr/> 18      | <hr/> 17      |

### Senior Year

|                                                       | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------------------------------------|-------------|---------------|---------------|
| **Industrial Lab., C. I. 341, 342, 343 .....          | 5 Hrs.      | 8 Hrs.        | 7 Hrs.        |
| Principles of Sociology, Soc. 231 .....               | 5(5-0)      | .....         | .....         |
| Estimating, C. I. 344 .....                           | .....       | 5(5-0)        | .....         |
| Economics, 231, 234 .....                             | 5(5-0)      | .....         | 5(5-0)        |
| Mat., Equip., and Shop Management,<br>I. A. 347 ..... | .....       | 3(3-0)        | .....         |
| Working Drawings, A. E., 334, 335, 336 .....          | 3(1-4)      | 3(1-4)        | 3(1-4)        |
| Electives .....                                       | .....       | .....         | 3             |
|                                                       | <hr/> 18    | <hr/> 19      | <hr/> 18      |

\* An alternate course may be offered for those majoring in shoe repairing or in tailoring.

\*\* Students must elect a shop in the field of their major interest. One quarter of the number of hours prescribed by electives.

\*\*\* An alternate course may be offered for those majoring in masonry.

**DESCRIPTION OF COURSES IN INDUSTRIAL EDUCATION****Courses in Industrial Arts**

- 321. Advanced Woodwork.** Emphasis is placed on the practical operation of such machines as variety saw, band saw, radial saw, planer, mortiser, shaper, tenon machine, belt and drum sanding machines. Prerequisite: Credit 5(0-10).
- 322. Advanced Woodwork.** Further emphasis placed on the use of power machinery so that the student may develop facility in their use. The principles of panel construction, the various ways of tenoning, proper methods of gluing, and the most practical methods of laying out work are demonstrated. Prerequisite: I. A. 321. Credit 5(0-10).
- 323. Advanced Woodwork.** Construction of projects from drawings or blueprints. Also care of power machines, saw filing, band saw brazing, sharpening and setting planer knives are part of the course.
- 324. Materials of Construction.** A study of the manufacture and physical properties of iron, steel, timber, cement, concrete, and other materials encountered in technical fields, and the A. S. T. M., specifications and methods of testing. Prerequisite: Chem. 113. Credit 3(3-0).
- 325. Automobile Mechanics.** This course takes in the maintenance and operation of the automobile, principles of the four-cycle engine, and the ignition system. Credit 3(0-6).
- 326. Electric Wiring.** This course covers the fundamental principles of two- and three-wire circuits for light and power. It also considers the study of and use of electrical wiring materials and electrical codes. Credit 3(0-6).
- 327. General Electricity.** Instruction and laboratory practice covering fundamental principles of direct and of alternating current equipment. Study of meters, motors, generators, armature winding and alternating current circuits. Study of home appliances are made an integral part of the course. Credit 3(0-6).
- 328. Electrical Projects.** The intent of this course is to provide teachers of electricity in junior—or senior high schools with sufficient material and data to enable them to cope successfully with the problem of electrical projects for class construction. The course also gives the student a working knowledge of the more important principles upon which radio transmission and reception are accomplished. Credit 3(0-6).

- 329. General Metalwork.** The course covers problems in iron, steel which can be made without the regular machine shop equipment. It also includes work with tin, galvanized iron, brass, copper and other art metals. The intent of the course is to give experience in light metalwork that may be used in the public school shop where no regular machine shop equipment is available.
- 331. Vocational Drawing.** Correlation between mechanical drawing and shop projects. Elementary principles of industrial arts design. Prerequisite: M. E. 311, 312. Credit 3(0-6).
- 332. Vocational Drawing.** Proportion, balance, and gracefulness in design of shop projects. Prerequisite: I. A. 331. Credit 3(0-6).
- 333. Vocational Drawing.** Designing of school shops; selection and location of equipment with respect to use and economy. Prerequisite: I. A. 332. Credit 3(0-6).
- 338. Wood-turning.** Thorough drill in the cutting action of turning tools and methods of holding them. Projects in spindle and in face plate turning are selected for practice. Instruction is also given in finishing and polishing on the lathe. Credit 3(0-6).
- 338A. Wood-Turning.** Instruction is given in elaborate and more intricate types of turning than are given in I. A. 338. Projects involving spherical and spiral turning are included. Credit 3(0-6).
- 339. Upholstery.** Instruction includes caning and seat wearing method of upholstering a plain board surface, methods of fastening webbing, burlap and its uses, upholstery with springs, hard-edge upholstery, and spring edge upholstery. Credit 3(0-6).
- 339A. Upholstery.** A continuation of 339, including construction or rebuilding of an upholstered project. Credit 3(0-6).
- 340. Wood Finishing.** Instruction is given in the mechanical preparation of wood before staining, the preparation and use of stains and the application of different classes of commercial stains, kinds of fillers—their preparation and application, surface or refinishing coats, such as wax, oil, shellac, varnish, paint, and enamel. Credit 3(0-6).
- 340A. Wood Finishing.** Refinishing, French polishing, and special work in finishing and polishing on the lathe. Credit 3(0-6).
- 341. History of Industrial Education.** A foundation and orientation course in industrial education. Familiarizes the student with the underlying philosophy, the basic principles, the prevailing practices and the accepted terminology in trade and industrial education. Credit 3(3-0).

**347. Materials, Equipment and Shop Management.** The problems of equipping and arranging trades and industrial art shops and the care of tools, materials, safety first, and management are discussed. Credit 3(0-6).

**348. Comprehensive Shop Projects.** The student will be required to engage in such practical work as his individual needs seem to warrant. This work may include general construction and/or repair, maintenance work or advanced project involving wood turning, carving, inlaying, upholstering, and wood finishing. Credit 3(0-6).

### COURSES IN COMMERCIAL INDUSTRIES

The student must decide at the beginning of the second year the field of his major interest, and he must choose the industrial laboratory course suitable to that field. The field of interest is designated by the letter immediately following the course number; that is, C. I. 321-A would indicate that the student is pursuing his major work in the field of automobile mechanics.

The industrial laboratory courses 321, 322, 323, 331 332, 333, 341, 342, 343 may be in automobile mechanics, carpentry, cabinet making and upholstery, masonry, mechanical drawing, plumbing and steamfitting, shoe repairing, and tailoring.

The number of hours of industrial laboratory work may vary with the individual, depending upon his ability and experiences. The total number of credit hours should normally vary from fifty-five to sixty-five.

**335. Applied Math.** This course consists of application of mathematics to practical problems that may arise in the field and shop. It helps the student to apply their mathematics to everyday problems. Credit 3(3-0).

**336. Applied Math.** Continuation of 335 with emphasis placed on problem in respective field. Prerequisite 335. Credit 3(3-0).

**344. Estimating.** Estimating as applied to the respective fields of interest. Practical problems in taking of quantities and estimating. Individual problems in the respective fields. Credit 5(5-0).

**346. Principles of Foremanship.** Shows the place of the foreman in industry, his relationship between worker and manager, and the more recent principles and practices for developing better foremen. Credit 3(3-0).

---

**\*\* Students must elect a shop in the field of this major interest. One quarter of the number of hours prescribed may be electives.**

**COURSES IN VOCATIONAL EDUCATION**

- 331. Vocational Education.** The problems of vocations are considered from the standpoint of the basic principles of psychology and the laws of learning, the principles of economics and sociology, and the principles and practices of sound school administration. Winter. Credit 3(3-0).
- 332. Trade Analysis.** This course gives the students a knowledge of organizing trades and industrial arts courses. Emphasis is put on the selection of a line of useful and practical projects and the grouping of these projects in the order of their learning difficulties. Spring. Credit 3(3-0).
- 341. Vocational Guidance.** The problem of vocational guidance, its beginning, organization and administration in high schools. Special attention will be given to guidance in the Junior and Senior high school as it relates to the work of Industrial Arts. Fall. Credit 3(3-0).
- 342. Occupational and Educational Opportunities.** A study of the occupational and educational opportunities with reference to population trend and need. Winter. Credit 3(3-0).
- 343. Methods of Teaching Industrial Education.** Fundamental factors in teaching, agencies of education, classroom management, selection of problems and projects, job sheets and lesson plans. Winter. Credit 5(5-0).
- 334. Observation and Practice Teaching in Industrial Education.** Practical experience in conducting unit trade and industrial arts programs will be afforded. Spring. Credit 5(5-0). (See also I. A. 341.)

**For Graduates and Advanced Undergraduates**

Graduate work in industrial education aims to aid the promotion of industry by providing advanced technical training for those who plan to follow industrial careers and for teachers of industrial arts or vocational industrial education. The department offers instruction for the following types of students: (1) those in the field who desire advanced training as teachers or supervisors of unit and general industrial arts shops in junior and senior high schools; and in schools of the smaller communities; (2) experienced tradesmen with the necessary teaching requirements who desire additional training in the development and conduct of programs of industrial education, especially those established under the Smith-Hughes Act; (3) teachers of related or cognate subjects; (4) others who desire further training in these fields.



- 521. Philosophy of Vocational Education.** The place and need of vocational education in a democracy with special attention to the evolution of the philosophy of vocational education as a phase of the general education program. Credit 3 hours.
- 523. Current Problems in Industrial Arts and Vocational Education.** Problems involving analysis of objectives, content, types of equipment, and outcomes together with constructive suggestions for improving current practices. Credit 3 hours.
- 524. Laboratory Planning for Industrial Arts.** Analysis of problems and standards involved in planning rooms and practice in the selection, design, location, installation, and care of equipment in various high school industrial arts laboratories or vocational shops. Credit 3 hours.
- 525. Supervision and Administration of Vocational Education.** This course concerns itself with such topics as the selection and organization of curriculum materials, the development and preparation of shop budgets, the establishing and equipping of shops, and the selection and employment of teachers. Credit 3 hours.
- 526. Vocational Guidance.** Perfecting a guidance course for rural boys with special emphasis on counselling. Credit 3 hours.
- 527. Diagnostic Techniques in Vocational Guidance.** Detailed study and analysis of the various personnel procedures and techniques used in counselling. Credit 3 hours.
- 529. Visual Aids in Education.** Designed to give the students practical experience in the use of general techniques in teaching with the visual materials. Practice in the operation and maintenance of projection equipment is provided. Credit 3 hours.
- 531. Production Methods in Machine Woodworking.** An analysis of production methods in machine woodworking in which jobs are selected and the class personnel so organized that the work follows the most economical methods of production. Credit 3 hours.
- 532. Seminar in Industrial Education.** A consideration of scientific method with particular reference to thesis writing. Credit 3 hours.
- 533. Seminar in Vocational Education.** Investigations and discussions for advanced and mature persons who have had experience as teachers, supervisors, or administrators in one or more phases of vocational education. Credit 3 hours.
- 534. Time and Motion Study.** Techniques of time and motion study for purposes of developing efficiency. Credit 3 hours.

**535. Industrial Psychology.** Application of principles of psychology to problems of industrial organization, management, and efficiency. Credit 3 hours.

**536. Techniques and Methods of Research.** Research problems. Credit 3 hours.

## DEPARTMENT OF MATHEMATICS

All freshmen are required to take a placement test in mathematics. Those failing this test must register for mathematics 309.

A minimum of ten hours of mathematics is required for graduation from all schools except The School of Agriculture.

The following is suggested for those desiring a major and is recommended for those planning to do research work, graduate study or teach.

Those persons pursuing mathematics as a major should take Mathematics 313 in the freshman year and Physics 323 during their sophomore year.

For Freshman and Sophomore Courses, see page —.

### MAJOR IN MATHEMATICS

#### Junior Year

|                                    | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------------------|-------------|---------------|---------------|
| Calculus, Math, 321, 322, 323..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Math. 314, 324 .....               | 5(5-0)      | .....         | 3(1-4)        |
| Minor or Electives.....            | 5(5-0)      | 10( )         | 10( )         |

#### Senior Year

|                                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------|-------------|---------------|---------------|
| Differential Equations, Math. 331..... | .....       | 5(5-0)        | .....         |
| Theory of Equations, Math. 501.....    | .....       | .....         | 5(5-0)        |
| Mechanics, Math. 326.....              | 5(5-0)      | .....         | .....         |
| Mathematics, Math. 325.....            | .....       | .....         | 5(5-0)        |
| Minor or Electives.....                | 10( )       | 10( )         | 5( )          |

### COURSES IN MATHEMATICS

#### Undergraduates Only

**309. Remedial Mathematics.** This course is designed to strengthen and review the student in the fundamentals of arithmetic, plane geometry, and algebra. Students who fail to pass the placement test are required to pass this course in addition to the regular mathematics requirements. Credit 3(3-0).

**311. College Algebra.** Review of elementary topics, such as factoring, fractions, simple equations, exponents, and radicals. Other

topics studied are quadratics, simultaneous quadratic equations, logarithms, binomial theorem progression, determinants and permutation. Prerequisite: High School Algebra. Credit 5(5-0).

**312. Trigonometry.** Functions of angles and their practical applications to solution of problems, relations of acute logarithms of numbers and trigonometric functions, solutions of the right and oblique triangles by logarithms. Prerequisites: College Algebra and Plane Geometry. Credit 5(5-0).

**313. Analytic Geometry.** A thorough study of cartesian co-ordinates, curves, loci, straight line, circle, polar coordinates conic sections completes the plane analytic geometry. Coordinates in space, loci, plane and straight line completes the course. Prerequisite: Math. 312. Credit 5(5-0).

**314. History of Mathematics.** The History of Mathematics: This course is designed as an aid in the preparation of teachers of mathematics and includes a survey of the development of mathematics by chronological periods, with biographical references, illustrations of national and racial achievements, and discussions of the evolution of certain important topics of elementary mathematics. Credit 5(5-0).

**315. Mathematics of Business.** A basic course offered primarily for students of Business Administration. A study of elementary principles of mathematics as applied to investments, sinking funds, annuities, insurance, etc. The course is begun with a thorough study of interests—simple and compound. Credit 5(5-0).

**318. Elementary Mathematical Statistics.** A general course covering the use of graphs, frequency distributions, averages, measures of dispersion, etc., with an introduction to sampling and correlation; a basic course for all fields of application. Prerequisites: Math. 311, 315 and approval of instructor. Credit 5(5-0).

**321. Differential Calculus.** The fundamentals of differential calculus; maxima and minima; rates; curve tracing and application of derivatives, etc. Prerequisite: Math. 313. Credit 5(5-0).

**322. Integral Calculus.** Fundamentals of integral calculus, application of integrals to measurements of arcs, areas, and volumes, etc. Prerequisite: Math. 321. Credit 5(5-0).

**323. Differential and Integral Calculus.** A continuation of integral calculus. Solution of equations, application of integrals, center of gravity, moments of inertia, double and triple integration. Prerequisite: Math. 322. Credit 5(5-0).

**324. Surveying.** The method of using the compass, transit, tape and level in making plane surveys. Lectures and field work. Elementary stadia work. Prerequisite: Math. 312. Credit 3(1-4).

**325. Survey Course in Mathematics.** A brief study of the meaning of the basic ideas of arithmetic, algebra, trigonometry, analytical geometry and calculus, and their relation to each other. Recommended for those who plan to teach mathematics. This course will not serve as a prerequisite for any other courses in mathematics. Prerequisite: Math. 323. Credit 5(5-0).

**326. Mechanics.** The same as M. E. 331.  
Prerequisite: Math. 321. Credit 5(5-0).

**331. Differential Equations.** Solution of standard types of differential equations. Emphasis given on application to numerous examples in electricity and mechanics. Prerequisite: Math. 323. Credit 5(5-0).

### Advanced Undergraduates and Graduates

**501. Theory of Equations.** Methods of solving cubics, quadratics and other higher algebraic equations. Methods of approximating roots, systems of equations, elements of determinants. Prerequisite: Math. 313. Credit 5(5-0).

**502. Mathematics of Life Insurance.** Probability, mortality tables, life insurance, annuities, endowments, computation of net premiums, evaluation of policies, construction and use of tables. Credit 3(3-0).

**503. Differential Equations.** Formulation of practical problems as solutions of differential equations, method of solving type forms, systems of equations, singular solutions, methods of approximation, an introduction to partial differential equation. Credit 5(5-0).

**504. Numerical Computation.** Interpolation, numerical solution of equations, approximations, numerical integration, construction of tables. Credit 3(3-0).

**505. Statistics Methods.** Sampling from biological populations, statistics and experimentation, averages and tests of significance, linear, multiple and curvilinear regression, analysis of variance and covariance, individual comparisons. Credit 5(5-0).

**506. Advanced Calculus.** Review of differentiation and integration, approximation of integrals, partial derivatives, line integrals, integral theorems, applications to geometry, physics and mechanics. Credit 5(5-0).

**507. Mathematical Statistics.** Averages, moments, correlation, probability, the normal and Poisson's distributions, the Gram-Charlier series, the distribution of statistics, sampling of populations, the Lexis theory, Sheppard's corrections, maximum likelihood, and other selected topics. Credit 3(3-0).

## DEPARTMENT OF MECHANICAL ENGINEERING

This curriculum offers a broad training in the scientific principles underlying mechanical engineering and correlates this by application to specific fields of machine design, heat power, heating, ventilating, refrigeration, thermodynamics, industrial management and manufacturing problems.

Lectures and class instruction are supplemented by laboratory investigations designed to emphasize the engineering and economic principles involved. Students who take professional requirements for certificate in addition to regular curriculum may certify to teach.

## CURRICULUM

## Freshman Year

See first year's Curricula of Mechanical Arts, page 53.

## Sophomore Year

|                                           | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------------------------|-------------|---------------|---------------|
| Physics 321, 322, 323.....                | 5(4-2)      | 5(4-2)        | 5(4-2)        |
| Mathematics 321, 322, 323 .....           | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Military Science 221, 222, 223 .....      | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Machine Shop Practice 328, 329, 330 ..... | 2(0-4)      | 2(0-4)        | 2(0-4)        |
| Mechanical Drawing 323, 324, 325 .....    | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Mechanism M. E. 321 .....                 | .....       | .....         | 3(3-0)        |
| M. E. 317 .....                           | 3(0-6)      | .....         | .....         |
|                                           | <hr/>       | <hr/>         | <hr/>         |
|                                           | 20          | 17            | 20            |

## Junior Year

|                                              | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------|-------------|---------------|---------------|
| Electrical Engineering 331, 332, 333 .....   | 5(3-4)      | 5(3-4)        | 5(3-4)        |
| Mechanics, M. E. 331, 332, 333 .....         | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Heat Power Engineering, M. E. 336 .....      | .....       | 5(5-0)        | .....         |
| Heating and Ventilating, M. E. 334, 335..... | 3(3-0)      | 3(3-0)        | .....         |
| Materials of Construction, I. A. 324 .....   | 3(3-0)      | .....         | .....         |
| Thermodynamics, Physics 332 .....            | .....       | .....         | 5(5-0)        |
| Economics 231, 234 .....                     | 5(5-0)      | .....         | 5(5-0)        |
|                                              | <hr/>       | <hr/>         | <hr/>         |
|                                              | 21          | 18            | 20            |

## Senior Year

|                                               | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-----------------------------------------------|-------------|---------------|---------------|
| Machine Design, M. E. 341, 342, 343 .....     | 5(5-0)      | 5(3-4)        | 5(3-4)        |
| Heat Power Engineering, M. E. 334, 345.....   | 5(4-2)      | 5(3-4)        | .....         |
| Hydraulics, M. E. 337 .....                   | 3(3-0)      | .....         | .....         |
| Contracts and Specifications, M. E. 327 ..... | .....       | .....         | 3(3-0)        |
| Internal Combustion Engines, M. E. 338 ..     | .....       | 5(5-0)        | .....         |
| English Elective .....                        | 3(3-0)      | .....         | .....         |



|                                         |              |            |
|-----------------------------------------|--------------|------------|
| Surveying, Math. 324 .....              | .....        | 3(1-4)     |
| Testing Materials Lab., M. E. 346 ..... | .....        | 2(0-4)     |
| Metallurgy, M. E. 339 .....             | 3(3-0) ..... | .....      |
| Electives .....                         | 3 Hrs. ....  | 4 Hrs.     |
| <hr/>                                   |              | <hr/>      |
| 19                                      |              | 18      17 |

### Suggested Electives

Differential Equations, Math. 331.  
 Education (Professional Certificate Requirements.)  
 Estimating, C. I. 344.  
 Economics, Ec. 232, 234.  
 Special Problems in Mechanical Engineering.

### COURSES

- 311. Mechanical Drawing.** Instruction in proper use of drafting instruments and materials. Pencil drawings. Ink drawings. Tracing. Lettering. Emphasis placed upon accuracy and neatness. Credit 3(0-6).
- 312. Mechanical Drawing.** Continuation of 311. Elementary fundamentals required for machine drawing, including isometric, oblique and simple projections, the construction of conics and rolled curves. Prerequisite: 311. Credit 3(0-6).
- 314. Descriptive Geometry.** Short lectures and individual classroom instruction. Classroom exercises are issued in form of problem sheets which the student finishes according to directions. Emphasis is placed upon the ability to visualize the problems and processes of solution. The study of the fundamental conceptions of orthographic projection and fundamental problems on lines, planes and solids. Credit 3(1-4).
- 317. Pattern Making.** Care and use of tools, principles of planing, squaring and laying out work. Laboratory practices and modern methods of pattern making. Woods used, glued joints, methods of building up draft shrinkage, coating and storage. Small individual projects. Credit 3(0-6).
- 321. Mechanism.** A study of various types of mechanisms employed in the design of machines such as linkages, belting, cams and followers, gears, cones and wheel trains. Prerequisites: M. E. 323, Math. 312. Credit 3(3-0).
- 323. Mechanical Drawing.** Drafting room exercises accompanied by lectures, making assembly drawing from blueprints of the details of some machine. Dimensions, reproduction, tracing, blueprinting. Prerequisite: 313. Credit 3(0-6).

- 324. Mechanical Drawing.** Continuation of 323. Drafting room work in the solution of practical problems. Prerequisite: 323. Credit 3(0-6).
- 325. Mechanical Drawing.** Continuation of 324. Working drawings, tracing and blueprints are made from subjects in the major field of the student; carburetors for mechanical engineers, electrical motors for electrical engineers, etc. Credit 3(0-6). Prerequisite: 324.
- 327. Contracts and Specifications.** Elementary principles of contracts involving bids and bidders; methods of payment for contract and extra work; preparation and writing of specifications. Credit 3(3-0).
- 328. Machine Shop Practice.** A study of the theory construction and operation of various machine tools, such as lathes, milling machines, shapers and the use of special tools and measuring instruments. Prerequisite: M. E. 311. Credit 2(0-4).
- 329. Machine Shop Practice.** Construction of some project requiring the use of various machine tools and measuring instruments. Prerequisite: M. E. 341. Credit 2(0-4).
- 330. Machine Shop Practice.** Continuation of M. E. 329. Credit 2(0-4).
- 331. Mechanics. Statics.** Graphical and analytic resolution and composition of forces. Laws of equilibrium and force systems; stress in various types of frames; distribution forces; center of gravity moments of inertia and radii of gyration of plane areas and solids. Kinetics of solid bodies in plane motion. Credit 5(5-0).
- 332. Mechanics. Strength of Materials.** Physical properties of materials; fundamentals of stress and strain in bodies under uniform or varying stresses; the theory of bending; shearing; bending moments; equation of elastic curve; deflections in beams; stress due to combined axial loading and bending. Prerequisite: 331. Credit 5(5-0).
- 333. Mechanics. Structures.** A continuation of 332. Theory of column strength; torsion. Analytical trusses, columns, beams and girders. Design of wood and steel beams and columns. Calculation of roof loads, floor loads, loading on bridges, etc. Prerequisite: 332. Credit 5(5-0).
- 334. Heating and Ventilating.** A study of the theory, design and installation of hot air, direct and indirect steam, hot water and fan heating systems; central heating and temperature control. Com-

putations for heat losses and size of principal equipment. Layout of piping, ducts and auxiliary apparatus. Lectures, recitations. Credit 3(3-0).

- 335. Heating and Ventilating.** Continuation of 334 with special attention given to air analysis and air conditioning. Discussion of methods of air refrigeration, distribution, humidity control and conditioning equipment. Lectures, recitations. Credit 3(3-0).
- 336. Heat Power Engineering.** A description and analytic study of the principles involved in the application and utilization of heat in the steam boiler, steam engine, steam turbine and power plant auxiliaries, elementary thermodynamics, fuels and combustion. Prerequisite: Physics 322. Credit 5(5-0).
- 337. Hydraulics.** Elementary principles of hydrostatics and hydrokinetics; laws of static; dynamic pressure, flow of water through orifices, tubes, nozzles, wires pipe lines and open channels, hydraulic friction and accompanying losses; water measurements in pipes and open channels. Credit 3(3-0).
- 338. Internal Combustion Engines.** A study of the Otto and Diesel type of engines and their auxiliaries; fuel, performance; design, applications and economics. Discussions, problems. Prerequisite: Physics 322. Credit 5(5-0).
- 339. Metallurgy.** Production of refined ferrous and non-ferrous metals from their ores; properties of metals and alloys as related to structure and treatment; heat treatment; microscopic examination; casting, shaping and welding. Credit 3(3-0).
- 341. Machine Design.** A study of the properties of materials, the stresses in machine parts and procedures in design calculations. Lectures, recitations and problems. Prerequisite: M. E. 321 and 333. Credit 5(5-0).
- 342. Machine Design.** Design of machine elements involving a consideration of static and dynamic forces, critical speeds and the application of the theories of strength and resistance of materials. Lectures, recitations and design periods. Prerequisite: M. E. 341. Credit 5(3-4).
- 343. Machine Design.** A study of the design of gears and gear trains, shafts, screw, springs, clutches and castings. Prerequisite: M. E. 342. Credit 5(3-4).
- 344. Heat Power Engineering.** A study of modern central and isolated power plants, fuels, combustion, boilers, settings, stoker, fuel and ash conveying systems and experimental tests. Prerequisite: M. E. 336. Credit 5(4-2).

- 345. Heat Power Engineering.** Continuation of M. E. 344 with special attention given to steam engines, steam turbines, condensers, pumps, economics of power plants and experimental tests on various plant auxiliaries. Credit 5(3-4).
- 346. Testing Materials Laboratory.** Laboratory work devoted to experiments and standard tests on various engineering materials, including steel, iron, wood, brick, sand, gravel, cement and concrete. Prerequisite: M. E. 32. Credit 2(0-4).
- 347. Hydraulic Machinery.** A study of the theory, construction and operating characteristics of the principal types of hydraulic machinery. Lectures, recitation problems. Credit 3(3-0).
- 351, 352, 353. Mechanical Engineering Laboratory.** Opportunity for advanced experimental study along any line of work in which student may be specializing. The student is left largely to his own resources in planning and carrying out work. Credit 2(0-4), 2(0-4), 2(0-4).
- 

### MILITARY SCIENCE AND TACTICS RESERVE OFFICERS TRAINING CORPS

A senior unit of the Reserve Officers Training Corps is organized under authority of sections 40-47c, National Defense Act as amended.

The courses normally cover the four college years upon the successful completion of which the student is commissioned Second Lieutenant, Infantry, in the Officers Reserve Corps, Army of the United States.

Two years of Military Science is required of all able bodied male students, beginning the freshman year.

The advanced courses are given in Infantry and Air Corps training. Veterans may be given credit for one year of the elementary course at the discretion of the P. M. S. & T.

The ROTC Band offers opportunities for students to learn to play one or more instruments. Band equipment is furnished by the government for free use by cadets. Those students who are familiar with band instruments are encouraged to play in the band for further development. See Music 210 abc and 220 abc on page 000.

Uniforms, equipment and text books are furnished by the government free of cost. The student is responsible for the care and cleaning of the uniform and equipment. He is financially responsible for loss and for excessive wear or breakage due to carelessness, or unauthorized use of clothing and equipment. Each student

is required to have a certificate countersigned by his parents or guardian to insure that the government is reimbursed in case of loss or destruction of items issued to him.

The Post-war ROTC program will be put in effect in the 1946 fall term in so far as present laws permit and the remainder will be put in effect upon the passing of necessary legislation by Congress.

The mission of the Senior ROTC is to produce junior officers who have the qualities and attributes essential to their progressive and continued development as officers in the Army of the United States.

The Senior ROTC program will consist of two parts, (1) Elementary course and (2) advanced course including a summer camp.

(1) The elementary course will consist of formal instruction for a minimum of three hours per week for two academic years.

(2) The advanced course will consist of formal instruction for a minimum of five hours per week for two academic years and a summer camp of eight weeks duration.

Admission to the Senior ROTC program will be voluntary on the part of the applicant, who must meet the following requirements for enrollment and continuance:

- a. Be a citizen of the U. S.
- b. Be accepted by the institution as a regular student.
- c. Be physically qualified as prescribed by the War Department, with due allowance to be made for correctable physical defects.
4. Be between age limits 14-22 years, inclusive, at the time of enrollment except for veterans of World War II enrolling at colleges prior to January 1, 1950. World War II veterans may be no more than 26 years of age.
- e. Successfully complete such general survey or screening test as are given to determine eligibility for admittance to the Elementary and Advanced Courses of the Senior ROTC program.
- f. Agree in writing upon admission to either the Elementary or Advanced ROTC courses to complete the course of instruction offered unless released by the War Department. The contract will expire if the student's attendance at school is interrupted for more than two calendar years.
- g. Maintain satisfactory scholastic standing required by the institution.
- h. All Freshman and Sophomore Students may continue to be required by the institution to participate in two years of military training in which the War Department will continue to encourage and assist; but not necessarily as members of the ROTC program.



### COURSES OF INSTRUCTION

**211, 212, 213 Military Science.** First year Elementary courses are:—World Military Situation; Military Organization; Hygiene and First Aid; Leadership Drill & Exercise of Command; Individual Weapons & Marksmanship; Maps and Aerial Photographs; National Defense Act & ROTC. 211 Fall credit 2(1-2); 212 Winter credit 2(1-2); 213 Spring credit 2(1-2).

**221, 222, 223 Military Science.** Second year Elementary courses are:—World Military Situation; Leadership Drill & Exercise of Command; Physical Development Methods; Maps and Aerial Photographs; Military Administration; Evolution of Warfare; Military Laws and Boards. 221 Fall credit 2(1-2); 222 Winter credit 2(1-2); Spring credit 2(1-2).

**231, 232, 233 Advanced Military Science.** First year Advanced courses are:—Leadership Drill & Exercise of Command; Tactics and Technique of Infantry; Occupied Territories; Military Leadership Psychology and Personnel Management; Military Problems of the U. S. Military Law and Boards. 231 Fall credit 5(4-2); 232 Winter credit 5(4-2); 233 Spring credit 5(4-2).

**241, 242, 243 Advanced Military Science.** Second year Advanced courses are:—Leadership Drill & Exercise of Command; Military Teaching Methods; Geographical Foundations of National Power; Tactics and Technique of Infantry; Combined and Joint Operations; Psychological Warfare; Military Mobilization & Demobilization; Command and Staff. 241 Fall credit 5(4-2); 242 Winter credit 5(4-2); Spring credit 5(4-2).

The program and/or courses are subject to change by War Department directives, due to current changes of events.

---

### MUSIC

Music is recognized as of fundamental value in the enrichment of the life of every college man and woman. The principal and ultimate aim of our courses in music is directed toward the development of interest and a sincere desire to understand and appreciate all types of music more fully.

The curriculum is designed to give the student of talent, electing music as his main interest, a thorough training so that he will be prepared: (1) to teach music, (2) to continue the study of music after completing the courses here, (3) to be an influencing factor in the cultural development of his community.

A new course in instrumental music designed to prepare students to organize and train high school bands is now available to qualified persons. Those interested should see the band leader and be prepared to take a preliminary examination upon entering.

## COURSES OF INSTRUCTION

### Music Appreciation

The following six quarters of music appreciation may be taken by those students not interested in either a major or a minor in band music; however, these courses are a part of the graduation requirements and must be taken during the first two years, unless art is taken instead.

**211. An Introduction to Music Appreciation.** This course aims to provide a general cultural background for the listener and includes a study of the instruments of the modern symphony orchestra. Credit 1(0-2).

**212. An Introduction to Music Appreciation.** A number of musical terms and the lives of a number of the earlier musicians are studied. The victrola is used for the hearing of musical examples. Credit 1(0-2).

**213. An Introduction to Music Appreciation.** Continued use of the Victrola and the study of the lives of musicians. Credit 1(0-2).

**221. Music Appreciation.** This course deals with the characteristics of the eighteenth century music. Credit 1(0-2).

**222. Music Appreciation.** Music of the nineteenth century is carefully studied and examined. Credit 1(0-2).

**223. Music Appreciation.** Music of the nineteenth and twentieth centuries is carefully studied and examined. Credit 1(0-2).

### History of Music

The following courses in the history of music are required of all majors and minors in music and should be taken during either the second or third year.

**241. History of Music.** This is a survey course and takes music from its early beginnings to the sixteenth century. Credit 3(3-0).

**242. History of Music.** This is a survey course and takes music from the sixteenth century to the eighteenth century. Credit 3(3-0).

**243. History of Music.** This is a survey course and takes music from the eighteenth century to our modern period. Credit 3(3-0).

### Theory of Music

The following three courses are basic courses for all persons planning a major or minor in music and should be taken during the freshman year. They are also prerequisites for all other music courses leading to a major in instrumental music.

- 214. Fundamental Principles of Music Theory.** This course includes a study of all major and minor keys, scales, intervals, and triads. Credit 2(1-2).
- 215. Fundamental Principles of Music Theory.** This is a continuation of 214 and work is begun in ear training and sight singing. Credit 2(1-2).
- 216. Fundamental Principles of Music Theory.** This is a continuation of 215 with more advanced work being given in ear training, sight singing, and terminology. Credit 2(1-2).

### Harmony

The following six quarters of harmony are required for all majors in band music. Minors in music are required to take the first three quarters. The first three courses should be taken during the second year.

- 224. Elementary Harmony.** Review of all major and minor scales, intervals, triads, and their inversions. Also work at the keyboard, ear training, and dictation. Credit 3(2-2).
- 225. Elementary Harmony.** This course includes the study of inversions of primary and secondary chords, sevenths and their inversions, and simple modulations. Also work at the keyboard, ear training, and dictation. Credit 3(2-2).
- 226. Elementary Harmony.** This is a continuation of 225 and each student is expected to compose a hymn tune. Work will also be given at the keyboard along with ear training, and dictation. Credit 3(2-2).
- 231. Advanced Harmony.** A continuation of 226 including modulations, chromatic alterations, ornaments, keyboard, ear training, and dictation. Credit 3(2-2).
- 232. Advanced Harmony.** A continuation of 231. Harmonic and formal analysis is started along with the keyboard, ear training, and dictation. Credit 3(2-2).
- 233. Advanced Harmony.** A continuation of 232. Credit 3(2-2).

The following three courses are required of all majors in instrumental music and should be taken during the senior year. Credit 3(2-2).

- 247a. Problems in Band Arranging.** A practical study of all instruments and the art of scoring for small combinations of instruments. Credit 2(2-0).
- 247b. Problems in Band Arranging.** This is a continuation of Music 247a. The student also writes for combinations of instruments although sectional writing is stressed. Credit 2(2-0).

**247c. Problems in Band Arranging.** The student learns to score for full band. As a class project one composition will be scored for full band. Credit 2(2-0).

### Music Education

**234. Methods for Teaching in the Public Schools.** This course deals with the materials and methods for teaching in the primary grades with special attention given to the care and testing of the adolescent voice. Credit 3(2-2).

**235. Methods for Teaching in the Public Schools.** This course deals with the materials and methods for teaching in the grammar grades with special attention given to the teaching of music theory in these grades. Credit 3(2-2).

**236. Methods for Teaching in the Public Schools.** This course deals with the materials and methods for teaching in the junior high and high school. Credit 3(2-2).

**237. Elementary Conducting.** This course includes the technique of the baton and the study of the different forms for the purpose of conducting. Also some time is devoted to the easy examples of score reading with an opportunity for practical experience in dealing with both vocal and instrumental groups. Credit 3(1-4).

**217. Instrumental Music Methods.** The percussion instruments are studied and the proper methods for teaching these instruments are carefully worked out. Credit 2(1-2).

**218. Instrumental Music Methods.** The woodwind instruments are studied and the proper methods for teaching these instruments are carefully worked out. Credit 2(1-2).

**219. Instrumental Music Methods.** The brass-wind instruments are studied and the proper methods for teaching these instruments are carefully worked out. Credit 2(1-2).

**244a. Band Technics.** The student learns about school band organization and administration. Credit 2(1-2).

**244b. Band Technics.** The student has an opportunity to do practical work in the teaching of woodwind, brass-wind, and percussion instruments under the guidance of the band leader. Credit 2(1-2).

**244c. Band Technics.** The student is given an opportunity to work with the college band and ensemble groups. Some time may be spent working with outside organizations for practical experience. Credit 2(1-2).

**246. Voice.** This course aims to give the student a knowledge of the proper fundamentals in breathing, breath control, and voice pro-

duction. (Three hours credit of the total five hours of this course come from two years of satisfactory service in the musical organizations at the College. Credit 5(2-3).

**210abc. Beginning Band.** First year band. Any student may elect band during his freshman year with the permission of the band leader and the Professor of Military Science. Regular attendance is required at rehearsals. Credit 1(0-5).

**220abc. Beginning Band.** Second year band. Credit 1(0-5).

**230abc. Advanced Band. Third year band.** This organization is the regular College Concert and Marching Band and regular attendance is required at all rehearsals and public performances. All students recommended by an approved teacher and satisfying the departmental standards for the equivalent of two full years of previous study are eligible to enroll. Credit 2(1-4).

**240abc. Advanced Band.** Fourth year band. Same as above. Credit 2(1-4).

---

## PHYSICAL EDUCATION

The general physical education program aims to promote the health, physical and mental efficiency of each student enrolled in the college and to provide carry-over interests and activities for all. A Health examination is given to each new student before he matriculates so as to determine his needs in physical education.

Unless officially excused by the college physician two class periods each week are required of all students. Juniors and seniors are permitted to elect their activity classes if all of the health, posture, and credit requirements have been met.

Students must be prepared, upon matriculation, to place their orders for the activity uniforms, the approximate cost for which is \$7.00 for men and \$6.00 for women.

## INTRAMURALS

A program of intramural activities is conducted, on an elective basis, for all students. Schedules and tournaments are arranged, and equipment is made available by the physical education majors.

## VARSITY ATHLETICS

The intercollegiate athletic program is under the supervision and direction of the Athletic Committee, consisting of faculty, alumni and student members. The student members are appointed to the committee by the college president, on the basis of merit and achievement. The sports included in the program are: football, basketball,



baseball, track, boxing and tennis. The college is a member of the Colored Intercollegiate Athletic Association and is subject to the rules and regulations of that body.

The Varsity letter shall be awarded by the Athletic Committee, upon recommendation of the coaching staff, to members of the football and basketball teams who have participated in a minimum of one-half of the total number of periods played in intercollegiate competition. In baseball, participation in one-half of the total number of innings played is required with the exception of: for pitchers who must have participated in at least one-fourth of the total number of innings played in intercollegiate competition. In the remaining sports, the award is made to the athlete who participates through the season with credit, with a provision that: to members of the track team who win two points in the conference or intersectional meets; to members of the tennis team who have won at least two matches in the conference tournament; and, to members of the boxing team who have won at least two matches in the conference tournament. The Varsity letter is awarded to members of the cheering squad who serve with credit.

### **GENERAL ACTIVITY PHYSICAL EDUCATION COURSES**

The general courses in physical education, based upon the physical examination given at the beginning of the year, are required of all Freshmen and Sophomore men and women. A wide variety of athletic sports and games is provided to meet the needs and interests of the student and to acquaint him with many activities in the field of physical education. Special attention is given toward developing skills and an understanding of rules.

#### **Courses for Women**

##### **Freshmen**

**210a. Soccer and Speedball.** Fall. Credit 1(0-2).

**210b. Basketball.** Winter. Credit 1(0-2).

**210c. Softball and Volleyball.** Spring. Credit 1(0-2).

**215a,b,c. Individual Physical Education.**

Activities (Fall, Winter, Spring).

Special activities designed for those women whose examinations show that they are unable to participate in the regular physical education classes. Credit 1(0-2).

##### **Sophomores**

**220a. Hockey.** Fall. Credit 1(0-2).

**220b. Stunts and Tumbling.** Winter. Credit 1(0-2).

**220c. Tennis and Archery.** Spring. Credit 1(0-2).

**216a,b,c.** A continuation of the course 215a,b, and c. (Fall, Winter, Spring). Credit 1(0-2).

### **Courses for Men**

#### **Freshmen**

**210a. Speedball.** Fall. Credit 1(0-2).

**210b. Stunts and Tumbling.** Winter. Credit 1(0-2).

**210c. Volleyball, Track and Field.** Spring. Credit 1(0-2).

**215a,b,c.** Individual Physical Education Activities. (Fall, Winter, Spring).

Special activities designed for those men whose examinations show that they are unable to participate in the regular physical education classes. Credit 1(0-2).

#### **Sophomores**

**220a. Touch Football.** Fall. Credit 1(0-2).

**220b Basketball and Advanced Tumbling.** Winter. Credit 1(0-2).

**220c. Softball and Badminton.** Spring. Credit 1(0-2).

**216a,b,c.,** A continuation of the course 215a,b,c. (Fall, Winter, Spring). Credit 1(0-2).

### **REQUIREMENTS FOR A MINOR IN PHYSICAL EDUCATION**

#### **Theory Courses**

**226. Practices and Procedures in Physical Education.** Winter. Credit 3(2-2).

**228. Practices and Procedures in Health Education.** Spring. Credit 3(3-3).

|                                                           |         |
|-----------------------------------------------------------|---------|
| Principles of Physical Education, 231.....                | 3 hours |
| The Teaching of Physical Education, 243.....              | 5 hours |
| The Teaching of Health Education, 244.....                | 3 hours |
| Administration of Health and Physical Education, 249..... | 5 hours |

#### **Activity and Coaching Courses**

|                                         |         |
|-----------------------------------------|---------|
| Tap Dancing, 211t (women).....          | 1 hour  |
| Folk Dancing, 212f (women).....         | 1 hour  |
| Individual Sports, 213is.....           | 1 hour  |
| Rhythmics, 214 .....                    | 1 hour  |
| The Modern Dance, 217a,b,c (women)..... | 1 hour  |
| Stunts and Tumbling, 218.....           | 1 hour  |
| Coaching of Football, 225 (men).....    | 2 hours |

|                                                                          |         |
|--------------------------------------------------------------------------|---------|
| Coaching of Softball and Volleyball, 225a (women).....                   | 2 hours |
| Coaching of Basketball, 225b .....                                       | 2 hours |
| Coaching of Track, 225d (men).....                                       | 2 hours |
| Coaching of Baseball, 225e (men).....                                    | 2 hours |
| Group Games, 226.....                                                    | 1 hour  |
| Boxing, 226a (men).....                                                  | 1 hour  |
| Combatives and Running Activities, 229a (men).....                       | 1 hour  |
| *Unless indicated otherwise, all courses will be taken by men and women. |         |

### MAJOR CURRICULUM IN PHYSICAL EDUCATION

The professional curriculum in physical education is designed to prepare students to become teachers of health and physical education, and athletic coaches. The physical education teacher is generally expected to teach other subjects. It is therefore, recommended that the student, upon counsel of his advisor, pursue courses leading to a second major or double minor.

### MAJOR IN PHYSICAL EDUCATION

#### Freshman Year

|                                     | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------------------|-------------|---------------|---------------|
| English 211, 212, 213.....          | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Math. 311, 312.....                 | 5(5-0)      | 5(5-0)        | .....         |
| History 211 or 212.....             | .....       | .....         | 5(5-0)        |
| Vocations .....                     | 3(0-6)      | 3(0-6)        | 3(0-6)        |
| Art 314, 315, 316.....              | 2(0-2)      | 2(0-2)        | 2(0-2)        |
| Or                                  |             |               |               |
| Music 211, 212, 213.....            | 1(0-2)      | 1(0-2)        | 1(0-2)        |
| Education 211 .....                 | 1(0-2)      | .....         | .....         |
| Military Science 211, 212, 213..... | 2(3-2)      | 2(3-2)        | 2(3-2)        |
| Physical Edu. 210a, 210b, 210c..... | 1(0-2)      | 1(0-2)        | 1(0-2)        |

#### Sophomore Year

|                                     |        |        |        |
|-------------------------------------|--------|--------|--------|
| English .....                       | .....  | .....  | 5(5-0) |
| Chemistry 111, 112.....             | 5(3-4) | 5(3-4) | .....  |
| Botany 111 .....                    | 5(3-4) | 5(3-4) | 5(3-4) |
| Zoology, 111 .....                  | .....  | 5(3-4) | 5(3-4) |
| History 213, 221 or 222.....        | 5(5-0) | .....  | 5(5-0) |
| Physical Edu. 214 .....             | 1(1-1) | .....  | .....  |
| Physical Edu. 226 .....             | 1(0-2) | .....  | .....  |
| Physical Edu. 217abc (Women) .....  | 1(0-2) | 1(0-2) | 1(0-2) |
| Physical Edu. 218 (Women) .....     | .....  | 1(0-2) | .....  |
| Physical Edu. 225c .....            | .....  | .....  | 1(0-2) |
| Physical Edu. 226a (Men) .....      | .....  | 1(0-2) | .....  |
| Physical Edu. 229a (Men) .....      | .....  | 1(0-2) | .....  |
| Military Science 221, 222, 233..... | 2(3-2) | 2(3-2) | 2(3-2) |

**Junior Year**

|                                                       |        |        |        |
|-------------------------------------------------------|--------|--------|--------|
| Principles of Physical Education 231.....             | 3(3-0) | .....  | .....  |
| Coaching of Football (Men) 225.....                   | 2(2-1) | .....  | .....  |
| Coaching of Speedball & Soccer<br>(Women) 225 ss..... | 2(2-1) | .....  | .....  |
| Educational Psychology 231.....                       | 5(5-0) | .....  | .....  |
| Sociology 231 (Principles).....                       | 5(5-0) | .....  | .....  |
| Personal Hygiene 233.....                             | 3(3-0) | .....  | .....  |
| Human Anatomy 221.....                                |        | 5(3-4) | .....  |
| Principles of Health Education 236.....               |        | 3(3-0) | .....  |
| The Teaching of Physical Education 243....            |        | 5(3-4) | .....  |
| Coaching of Basketball 225b.....                      |        | 2(2-1) | .....  |
| Physiology 241 .....                                  |        |        | 5(5-0) |
| Intramural Activities 254.....                        |        |        | 3(3-0) |
| Coaching of Baseball (Men) 225e.....                  |        |        | 2(2-1) |
| History of Physical Education 245.....                |        |        | 3(3-0) |
| Community Hygiene 237.....                            |        |        | 3(3-0) |
| Physical Education 211t (Women).....                  |        | 1(0-2) | .....  |
| Physical Education 212f (Women).....                  |        |        | 1(0-2) |

**Senior Year**

|                                                         |        |        |        |
|---------------------------------------------------------|--------|--------|--------|
| Administration of Health & Physical<br>Edu. 249 .....   |        |        |        |
|                                                         | 5(5-0) | .....  | .....  |
| Community Recreation 232.....                           | 3(3-0) | .....  | .....  |
| Economics 231 .....                                     | 5(5-0) | .....  | .....  |
| Education 237 .....                                     | 3(3-0) | .....  | .....  |
| Education Philosophy 224.....                           | 3(3-0) | .....  | .....  |
| Education 236 (Test & Measurements).....                |        | 3(3-0) | .....  |
| Individual Physical Education 223.....                  |        | 3(3-0) | .....  |
| Research 246 .....                                      |        | 3(3-0) | .....  |
| The Teaching of Health 244.....                         |        | 3(3-0) | .....  |
| First Aid 238.....                                      |        | 2(2-0) | .....  |
| Coaching of Track (Men) 225d.....                       |        |        | 2(2-1) |
| Coaching of Softball & Volleyball<br>(Women) 225a ..... |        |        | 2(2-1) |
| Theory of the Dance (Women) 253.....                    |        |        | 3(3-0) |
| Practice Teaching 251 .....                             |        |        | 5(1-8) |
| Physical Education 213is.....                           |        | 1(0-1) | .....  |

**COURSES FOR MAJORS**

The activity courses listed below are designed for major and minor students. Instruction is given in methods of teaching activities in elementary and secondary schools, and the correlation of physical education activities with other school subjects. Special attention is given to the organization of demonstrations, pageants, and play-ground activities.

**211h Field Hockey.** (Women). Credit 1(0-2).

**211t. Tap Dancing.** (Women). Credit 1(0-2).

**212f. Folk Dancing.** (Women). Credit 1(0-2).

**213is. Individual Sports.** (men and women).

Instruction is given in such activities as handball, shuffleboard, ping pong, badminton, quoits, and croquet. Credit 1(0-2).

**214. Rhythmics** (men and women).

Activities included are clog, tap, and country dances suitable for both sexes. Credit 1(0-2).

**217a. The Modern Dance.** For beginners (women). Credit 1(0-2).

**217. The Modern Dance.** For intermediates (women). Credit 1(0-2).

**217c. The Modern Dance.** For advanced students (women). Credit 1(0-2).

**217. Stunts and Tumbling** (men and women). Two different sections offered. Credit 1(0-2).

**219. Aquatics** (men and women). Credit 1(0-2).

**225. The Coaching of Football** (men).

A study is made of the history of the sport, of rules, skills, psychology of coaching, of handling players, methods of organizing practices, strategy, team offenses and defenses, and of various modern formations and systems of play. Credit 2(1-2).

**225a. The Coaching of Softball and Volleyball** (women). Credit 2(1-2).

**225b. The Coaching of Basketball** (men and women). Two different sections offered. Credit 2(1-2).

**225c. Tennis** (men and women). Credit 1(0-2).

**225d. The Coaching of Track** (men). Credit 2(1-2).

**225e. The Coaching of Baseball** (men). Credit 2(1-2).

**225ss. The Coaching of Speedball and Soccer** (women). Credit 2(1-2).

**226. Group Games** (men and women). A study is made of a large variety of games of low organization of the circle, group, and line type, which might be suitable for use on the playground, in the gymnasium, or at camp, and for adult clubs or gatherings.

**226a. Boxing** (men). Credit 1(0-2).

**229a. Combatives and Running Activities** (men). Credit 1(0-2).



- 221. Human Anatomy** (men and women). A brief study is made of the human body as it relates to students of physical education. Credit 5(3-4).
- 223. Individual Physical Education** (men and women). A study is made of methods of examining and determining needs of the handicapped; activities suitable for individuals with abnormal body conditions, and the conduct of a program of restricted activities to meet their needs. Prerequisite: Human Anatomy. Credit 3(3-0).
- 232. Community Recreation** (men and women). A study is made of city, state, and national organizations. Practice is given in the general principles and techniques in the organization and promotion of leisure activities for home, school and community. Credit 3(3-0).
- 232a. Nature and Function of Play** (men and women). A brief study of the history and theories of play and play as a function of enriched living. Credit 2(2-0).
- 233. Personal Hygiene** (men and women). This course aims to establish a basis of positive health and efficiency through a consideration of health habits, knowledge and attitudes and other factors which affect health. Credit 3(3-0).
- 236. Principles of Health Education** (men and women). A study is made of principles for the teaching of health education in elementary and high schools. A close correlation with physical education and other subjects is outlined and encouraged. Credit 3(3-0).
- 237. Community Hygiene** (men and women). Consideration is given to the field of public health as it affects community and individual health, with special emphasis on ways that the individual and community agencies may improve and maintain group hygiene. Credit 3(3-0).
- 338. First Aid** (men and women). A study of techniques of first aid to the injured in the home, school, and community. Emphasis is placed upon the practice of safety measures. Credit 2(1-2).
- 241. Physiology** (men and women). A course in elementary physiology, covering the muscular, cardiorespiratory, nervous, gastrointestinal and reproductive systems. (Credit 5(5-0).
- 243. The Teaching of Physical Education** (men and women). Two different sections. This course points out the best procedures in acquiring desired outcomes in physical education. Practice is given to planning, organizing and supervising physical education class activities. Prerequisites: Principles and an adequate number of other courses in physical education. Credit 5(3-4).

- 244. The Teaching of Health Education** (men and women). In this course consideration is given to the methods, materials and procedures for the teaching of health in the elementary and high schools. Prerequisites: Principles of Health Education and Personal Hygiene. Credit 3(3-0).
- 245. History of Physical Education** (men and women). A study of the evolution of physical education from the earliest times down to the present day. It considers the relation of physical education to education and to National life and ideals as it takes up the different historical periods. Credit 3(3-0).
- 249. Administration of Health and Physical Education** (men and women). A study of philosophy and policies in the administration of a health and physical education program, including the classification of students, the staff, teaching load, time schedule, finance, the gymnasium, locker rooms, equipment, and inter-scholastic athletics. Prerequisites: Principles, and an adequate number of other physical education courses. Credit 5(5-0).
- 252. Athletic Officiating** (men and women). Two different sections. Credit 1(0-2).
- 254. Intramural Activities.** (men and women). A study of the organization and administration of intramural activities, including lectures, papers, and discussions of finance, equipment, time, schedules and policies. Credit 3(3-0).

---

### DEPARTMENT OF PHYSICS

The work of the Department of Physics is directed toward the following ends: (1) the training of students of the Sciences for future graduate work; (2) the training of teachers of Physics and the Physical Sciences for Secondary schools; (3) the training of pre-engineering and pre-medical students for later professional work; and (4) the training of the general student in scientific methods of work and in the understanding of the place of physical science in the modern world. Students who are interested in these opportunities should begin the study of physics as early as possible. Three courses in the Calculus should be taken in the Sophomore year to provide a good background for major work in the physical sciences and engineering.

#### Major In Physics

##### Junior Year

|                                             | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|---------------------------------------------|-------------|---------------|---------------|
| Physics 331. Electricity and Magnetism..... | .....       | .....         | 5(5-0)        |
| M.E. 331, 332, 333.....                     | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Physics 336 Mechanics.....                  | 5(5-0)      | .....         | .....         |

|                                            |        |              |
|--------------------------------------------|--------|--------------|
| Physics 502 Heat.....                      | 5(2-6) | .....        |
| Physics 351, 352 Physical Mathematics..... | 5(5-0) | 5(5-0) ..... |
| Math. 331. Differential Equations.....     | .....  | 5(5-0)       |
| Electives .....                            | 3( )   | 3( ) 3( )    |
|                                            | 18     | 18 18        |

**Senior Year**

|                                                                         | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|-------------------------------------------------------------------------|-------------|---------------|---------------|
| Physics 334, 335. Electrical Measurements.<br>Same as E.E. 334,335..... | .....       | 5(3-4)        | .....         |
| Physics 333 Electronics .....                                           | .....       | 5(3-4)        | .....         |
| Physics 505 Modern Physics.....                                         | .....       | .....         | 5(5-0)        |
| Physics 337 Vibration and Sound.....                                    | 5(4-2)      | .....         | .....         |
| Physics 506 Vector Analysis.....                                        | 5(5-0)      | .....         | .....         |
| Physics 507, 508 Electrodynamics.....                                   | .....       | 5(5-0)        | 5(5-0)        |
| Electives .....                                                         | 3( )        | 3( )          | 8( )          |
|                                                                         | 18          | 18            | 18            |

**Courses in Physics**

- 311. Physics Survey.** The scientific method, the nature of motion and rest of bodies, heat and temperature. For non-science majors. 5(4-2).
- 312. Physics Survey.** Atomic and molecular phenomena. Wave motion. Sound. For non-science majors. 5(4-2).
- 313. Physics Survey.** Relations between matter and electricity. The nature of light. For non-science majors. 5(4-2).
- 314. Household Physics.** Special emphasis is given to the applications of mechanics, heat, and electrical principles to the modern household. Credit 5(4-2). Formerly Physics 311.
- 321. General Physics.** Introduction to the fundamental principles of mechanics and heat. Liberal use of mathematics including beginning calculus. Prerequisites: Math. 311, 312, 313. Calculus should be taken concurrently. 5(4-2).
- 322. General Physics.** Introduction to the fundamental principles of wave motion, sound, and light. Prerequisites: Physics 321, Math. 321. 5(4-2).
- 323. General Physics.** Introduction to the fundamental principles of electricity and magnetism. Prerequisites: Math. 322, Physics 322. 5(4-2).
- 331. Electricity and Magnetism.** A presentation of the theory of direct current and alternating current electricity, including topics in magnetism and electricity. Prerequisite: 323. Credit 5(4-0).

- 332. Thermodynamics.** A study of the applications of thermodynamics to heat engines, air compression, and refrigeration. Prerequisite: Physics 323. Credit 5(5-0).
- 333. Electron Physics.** A study of cathode rays, charge and mass of the electron, photoelectricity, radioactivity, thermionic emission, radiation and ionization potentials. Prerequisite: Physics 331. Credit 5(5-0).
- 334. Electrical Measurements.** Same as E.E. 334. Prerequisite: Physics 323. Credit 5(3-4).
- 335. Electrical Measurements.** Same as E.E. 335. Prerequisite: Physics 334. Credit 5(3-4).
- 336. Theoretical Mechanics.** Dynamics of particles and of rigid bodies. Prerequisites: Physics 321, Math. 322. 5(5-0).
- 337. Vibration and Sound.** Production, propagation, transmission and reception of sound. Applications to acoustics, mechanics, and electrical problems. Prerequisites: Physics 323, Math. 322. 5(4-2).
- 351. Physical Mathematics.** Probability, statistics, graphical methods, least squares, empirical equations. Prerequisites: Math. 322. 5(5-0).
- 352. Physical Mathematics.** Complex numbers, series, function of a complex variable, applications to wave motion. Prerequisites: Math. 322, Physics 323.

### Graduates and Advanced Undergraduates

- 501. Meteorology.** A study of weather maps and polar front analysis is included together with a discussion of the principles underlying weather forecasting causes of weather changes. Credit 5(5-0).
- 502. Heat.** Methods of temperature measurements, specific heats, thermal expansion in solids, in liquids and in gases, conduction, radiation, kinetic theory of gases change of state, low and high temperature measurements. Prerequisite: Physics 323. Credit 5(2-6).
- 503. Physical and Geometric Optics.** A study of the physical properties of light, velocity, wave properties, color, optical instruments. Prerequisite: Physics 323. Credit 5(2-6).
- 505. Modern Physics.** A course dealing with the significant advances of physics since 1900. Includes atomic structure, elementary quantum theory. Prerequisite: Physics 333. Credit 5(5-0).
- 506. Vector Analysis.** The algebra of vectors, the differential and integral calculus of vectors, applications to mechanics and electrodynamics. Prerequisites: Math 323, Physics 323. 5(5-0).

- 507. Electrodynamics.** Electrostatic fields, magnetic fields of steady currents, electromagnetic induction. Prerequisites: Physics 331, Math. 323. 5(5-0).
- 508. Electrodynamics.** Maxwell's equations, general theorems of electrodynamics, electromagnetic waves. Prerequisites: Physics 507, Math. 323. 5(5-0).
- 555. History of Physics.** Historical development of the scientific method. The social and political implications of science and technology. Open to advanced students of all departments. 5(5-0).
- 

### RELIGION AND ETHICS

The courses in religion and ethics are designed (1) to help the student to obtain a reasonably adequate understanding of the Bible, (2) to offer opportunity for training in the art of worship, (3) to evolve a sound philosophy of life based upon inherited theories of mankind related to ideals of morality.

- 231. Introduction to Old Testament.** The course aims to give a deeper appreciation of the Old Testament and a more intelligent understanding of its historical and religious value. It surveys the history and literature of the Old Testament and traces the religious development of the Hebrews, the growth of their understanding of God and the effect of their religious point of view on their social and international contacts as reflected in their literature. Fall. Credit 3(3-0).
- 232. Instruction to New Testament.** This course includes a survey of the history and literature of the New Testament. Its aim is to give a deeper appreciation of the literature and teachings of the New Testament through a general view of the life and teachings of Jesus and the history of the early apostolic church. Winter. Credit 3(3-0).
- 233. Christian Ethics.** This course deals with the science of living according to the teachings of Jesus. The object of the course is to bring to the student an adequate interpretation of the Christian consciousness of life. An attempt will be made to apply the teachings of Jesus toward the solution of current problems of personal social morality. Spring. Credit 3(3-0).
- 241. The Psychology of Religion.** A study of the nature of religious life and its development in the individual and in humanity. Special consideration will be given to the psychological process involved in individual religious experience as expressed in worship, prayer, belief, faith, conversion, and mystical experience. Fall. Credit 3(3-0).



- 242. The Philosophy of Religion.** An investigation of the validity of religious beliefs in relation to their historical development. The aim is to aid the student in evaluating his present religious ideas in the light of history and of the best thinking of our own day, and to give him assistance in the working out of a consistent religious philosophy for his own personal living. Discussions will center around such problems as the meaning and value of religion, its relationship to other phases of life, knowledge in religion, concepts of God, immortality, prayer, sin and suffering, the meaning of Christ for Christian living, and the purpose and goal of life. Winter. Credit 3(3-0).
- 243. The Church In Contemporary Society.** Following a rapid general survey of the historical development of the Christian Church, attention is given to the peculiar role of the Church in contemporary society, with special reference to the Negro Church. Spring. Credit 3(3-0).
- 

### RESEARCH

- 246. Senior Research.** An introduction to methods of gathering, recording, and interpreting information. Open only to seniors in the School of Education and Sciences. Each student will either complete a long paper, which in certain cases will constitute a thesis, or contribute to the completion of a project requiring the work of two or more students. Given each quarter. Credit 3(3-0). For graduate research in specific fields, see Index to Graduate Courses, page 62.
- 

### DEPARTMENT OF SOCIAL SCIENCES

A minimum of 15 quarter hours of history is required for graduation in the School of Education and Sciences or in Fine Arts. Majors in this department are required to pass a comprehensive examination in the field of social sciences at the end of the Winter Quarter of their senior year.

The offerings of this department are grouped under three major headings, (1) Social Studies; (2) Applied Sociology and (3) Labor and Industrial Relations.

Freshmen and sophomores will find course suggestions and requirements on page 58.

**MAJORS IN SOCIAL STUDIES**

This major is designed especially for persons planning to teach.

**Junior Year**

|                                                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------------------------------------|-------------|---------------|---------------|
| Ancient and Medieval History,<br>Hist. 231, 232..... | .....       | 5(5-0)        | 5(5-0)        |
| Economics, Ec. 231, 232.....                         | 5(5-0)      | 5(5-0)        | .....         |
| Money and Banking, Ec. 233<br>or                     |             |               |               |
| Labor Problems, Ec. 234.....                         | .....       | .....         | 5(5-0)        |
| Sociology 231, 232, 242.....                         | 5(5-0)      | 5(5-0)        | 3(3-0)        |
| Minor or Electives.....                              | 8( )        | 3(3-0)        | 5(5-0)        |

**Senior Year**

|                                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------|-------------|---------------|---------------|
| Principles of Geography, Geo. 240..... | .....       | 5(5-0)        | .....         |
| Commercial Geography, Geo. 241.....    | .....       | .....         | 5(5-0)        |
| Latin American History, Hist. 233..... | .....       | .....         | 3(3-0)        |
| Federal Government, Pol. Sc. 231.....  | 5(5-0)      | .....         | .....         |
| State Government, Pol. Sc. 232.....    | .....       | 5(5-0)        | .....         |
| Minor of Electives.....                | 10( )       | 5( )          | 5( )          |

**MAJOR IN APPLIED SOCIOLOGY**

This major is suggested for those who are planning to become workers or administrators in some form of social work or community service.

**Junior Year**

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| Ec. 231, 232, 234.....   | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Soc. 231, 232, 233.....  | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Soc. 501, 502, 243.....  | 3(3-0)      | 3(3-0)        | 3(3-0)        |
| Pol. Sc. 231 or 232..... | 5(5-0)      | .....         | .....         |

**Senior Year**

|                          | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|--------------------------|-------------|---------------|---------------|
| Pol. Sc. 231 or 232..... | 5(5-0)      | .....         | .....         |
| Soc. 241, 242.....       | .....       | 3(3-0)        | 3(3-0)        |
| Ec. 254, 501, 502.....   | 4(2-4)      | 3(3-0)        | 3(3-0)        |
| Soc. 503 .....           | 3(1-4)      | .....         | .....         |
| H. A. 112, 123.....      | .....       | 3(3-0)        | 3(3-0)        |
| Electives .....          | 5( )        | 5( )          | 5( )          |

**MAJOR IN LABOR AND INDUSTRIAL RELATIONS**

This major is suggested for those persons looking forward to employment as personnel advisers, among labor groups, in employment service or in the federal government service.

**Junior Year**

|                        | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|------------------------|-------------|---------------|---------------|
| Ec. 231, 232, 234..... | 5(5-0)      | 5(5-0)        | 5(5-0)        |
| Soc. 231, 232.....     | 5(5-0)      | 5(5-0)        | .....         |
| Ed. 341, 331, 535..... | 3(3-0)      | 3(3-0)        | 3(3-0)        |
| B. A. 335, 353.....    | 5(5-0)      | .....         | 5(5-0)        |

**Senior Year**

|                                                    | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------------------------------|-------------|---------------|---------------|
| Pol. Sc. 231, 232.....                             | 5(5-0)      | 5(5-0)        | .....         |
| Soc. 242, 243.....                                 | .....       | 3(3-0)        | 3(3-0)        |
| Soc. 501, 502.....                                 | 3(3-0)      | 3(3-0)        | .....         |
| Ec. 254, 501, 502.....                             | 4(2-4)      | 3(3-0)        | 3(3-0)        |
| Soc. 503, Ed. 342.....                             | 3(1-4)      | 3(3-0)        | .....         |
| Electives—Psychology, Accounting, Public Speaking. |             |               |               |

---

**COURSES IN HISTORY**

- 210. Survey of Civilization.** A general course outlining the main trends in the history of Western civilization and showing the development of Ancient civilizations and the subsequent expansion in Medieval and Modern Europe. Open to Freshmen only. Any quarter. Credit 5(5-0).
- 211. Modern Europe.** A survey course dealing with major factors and movements in the history of Modern Europe. It deals with economic, social, political, religious, and intellectual problems in their relationship to the development of national states, growth of democracy and the expansion of Europe from 1500 to 1815. Lectures, collateral reading, special reports and map work. Fall and Spring. Credit 5(5-0) each.
- 212. Modern Europe.** A survey of the history and development of Europe from 1815 to the present. Credit 5(5-0).
- 213. History of the Negro.** This course begins with a brief survey of the African background of the Negro and traces him from Africa to America. It includes a study of his enslavement, with special emphasis on slavery in America, the Free Negro before 1860, abolition, and the Civil War with special emphasis on the part played by Negro troops, achievements since 1865 and forces in Negro progress. Winter or Spring. Credit 5(5-0).

- 221. American History.** This course includes a survey of English history at the time the colonies were founded, and the economic, social, and political development of the colonies and of the United States down to 1865. Credit 5(5-0).
- 222. United States History.** An intensive study of the political, social, and economic history of the United States from 1865 to the first World War. Credit 5(5-0).
- 223. History of Reconstruction.** An intensive study of the social, political and economic conditions of the United States during the years 1865 to 1895. Prerequisite: 15 hours of history. Winter. Credit 3(3-0).
- 226. History of England.** A survey of the social and political development of England in the 16th, 17th, and 18th centuries. Credit 5(5-0).
- 231. Ancient History.** This course is designed for those majoring in the field or who plan to teach history in secondary schools. It includes a study of the civilization and contributions of the people of the Orient, along the Nile and of Greece and Rome. Prerequisite: 15 hours of history. Fall. Credit 5(5-0).
- 232. Mediaeval History.** A history of Europe in the middle ages with particular attention to social and economic conditions and cultural and religious development. Prerequisite: 15 hours of history. Winter. Credit 5(5-0).
- 233. History of Latin America.** A study of the rise and development of the Latin-American nations, with special attention to their relations with each other and with the outside world. Prerequisite: 15 hours of history or consent of instructor. Spring. Credit 3(3-0).
- 234. Contemporary American History.** Analysis of important problems in American history since the World War, with emphasis on the domestic and foreign policies. Any quarter. Credit 3(3-0).
- 235. History of Eastern Europe.** A general course in the history of Eastern Europe, the Balkans and Russia from the coming of the Romanoffs to the present. Credit 3(3-0).
- 245. Research Problem.** Open only to seniors majoring in the field. Any quarter. Credit 3(0-6).

### COURSES IN POLITICAL SCIENCE

- 231. Federal Government.** A general introductory course in the government of the United States to acquaint the student with the more important facts of the organization and working of Federal institutions and to give a foundation for more advanced work in government. The principles of political science; the state, the nation, the government; constitution, the federal executive, cabinet, and courts. Prerequisite: 15 hours of Soc. Science or consent of instructor. Fall. Credit 5(5-0).
- \*232. State and Local Governments.** A study of state constitutions and of the structure and functions of state and local government in the United States. Prerequisite: 15 hours of Soc. Science or consent of instructor. Winter. Credit 5(5-0).
- 

### GEOGRAPHY

- 240. Principles of Geography.** This course is a survey of the principles of geography. The earth, air, sea, and land studied with particular emphasis upon the physiographic features of North America. Credit 5(5-0).
- 241. Economic Geography.** This course deals with natural environment and natural resources in relation to the various economic areas of the world with particular emphasis on the development of the United States. This is followed by regional approach in relation to economic activities. Credit 5(5-0).
- 242. Resources and Industries of U. S.** A study of the Physical Resources of the U. S. and its possessions with emphasis on the utilization and conservation of power, labor, minerals and soils. Credit 3(3-0).
- 243. Economic Geography of Latin America.** This course deals with the agricultural and industrial resources of Latin America with special emphasis on such countries as Brazil, Argentina, Mexico and Cuba. The utilization of Negro labor and the assimilation of African Culture into Latin-American life. Credit 3(3-0).
- 

### COURSES IN SOCIOLOGY

(See also Rural Sociology, page 82)

- 231. Principles of Sociology.** A general survey of the field of sociology as a social science. Particular emphasis will be laid on social institutions, social organization, conditions and problems. Fall. Credit 5(5-0).

---

\*Offered in alternate years. Not offered in 1947-48.



- 232. Social Problems.** A review of social problems resulting from maladjustments such as dependency, disorganization, industrial unrest, juvenile and adult delinquency, crimes that stand in the way of social well being. Emphasis on current programs for social planning and reform. Prerequisite: Soc. 231 or consent of instructor. Credit 5(5-0).
- 233. Rural Home Life.** A survey of the home life of Negroes, living on farms and in rural communities, including means and methods of improvement; field and observation tours will be a part of the course; Prerequisite: Soc. 231 or consent of instructor. Spring. Credit 5(3-4).
- Soc. 234. Criminology and Juvenile Delinquency.** Crime from the point of view of personality and social situations and a study of techniques for improvement of delinquents. Credit 3(2-2).
- 241. The Family.** A survey of the family organization from primitive times to the present, and the analysis of the factors that enter into family development. Prerequisite: Soc. 231 or consent of instructor. Fall. Credit 3(3-0).
- 242. Race Relations.** A study of local conditions, situations, attitudes and progress of the various races in the United States, and methods of dealing with interracial problems. Prerequisite: Soc. 231 or consent of instructor. Winter. Credit 3(3-0).
- 243. Public Relations.** Methods and policies of establishing and maintaining friendly relationships with newspapers and other community enterprises. Such topics will be reviewed as editorials, propaganda, advertisements, public opinion and sources and evaluation of news. Credit 3(3-0).

### Graduates and Advanced Undergraduates

- 501. Leadership.** Survey and critical analysis of qualities and factors essential for good leaders in American life. Prerequisite: Sociology 232. Credit 3(3-0).
- 502. Current Economic and Social Problems.** A practical course in applied economics and sociology dealing with analysis of present trends in government economics, industry, agriculture and the social implications of these trends. Current problems of everyday life are emphasized. Prerequisite: 15 hours of social science. Credit 3(3-0).
- 503. Research Problems.** Individual problems for research in each student's field of interest—labor, industry, agriculture, unemployment, old age, etc. Prerequisite: 15 hours of social science. Credit 3(1-4).

- 505. History of Social Theory.** A brief review of the contributions of social theorists beginning with Plato, with consideration given to the social situations and historical events that give rise and substance to their writings. Open to majors in any of the social sciences, this course co-ordinates Sociology with Philosophy, History, Economics, Psychology and other related fields. Spring. Credit 3(3-0).
- 

### COURSES IN ECONOMICS

- 231. Principles of Economics.** This course surveys the general field of Economics. It considers the nature and scope of Economics, important economic institutions and economic characteristics of present society. Credit 5(5-0).
- 232. Economic Problems.** This course is concerned with the important economic problems found in our productive and consumptive processes, commerce, market prices, variations and adjustments in business, form of business organization, labor, capital, banking, public ownership and other related topics. Prerequisite: Ec. 231 or consent of instructor. Winter. Credit 5(5-0).
- 233. Money and Banking.** This course includes a general survey of the field money, banking and credit; monetary standards, inflation, deflation, international trade and purchasing power, recent federal monetary policy. Prerequisite: Ec. 231 or consent of instructor. Spring. Credit 5(5-0).
- 234. Labor Problems.** General introductory course, dealing with such labor problems as unemployment, wages, hours of labor, women in industry, child labor, industrial accidents, occupational diseases, industrial unrest, labor organizations, Negro labor, labor in national defense and employers associations with examination of proposed solutions. Spring. Credit 5(5-0).
- 254. Elements of Statistical Method.** A course intended to acquaint students with the elementary principles of statistics. The source and collection of data, the nature of statistical units; the properties and appropriate use of averages; methods of comparison; the tabular and graphic presentation of statistical information necessary to the formulation and execution of business and economic problems will be had through use of appropriate data. Fall. Credit 4(2-4).

### For Undergraduates and Graduates

- 501. Recent Labor Legislation.** Problems of labor from standpoint of the state; conciliation and arbitration, legal minimum wage, social insurance, and woman and child labor. Credit 3(3-0).

- 502. Social Security Legislation and Administration.** The need for and development of social security legislation in Europe and in America, particularly unemployment insurance, old age benefits, and public assistance programs, scope and probable extension, functions of federal, state and local organizations; administrative and social problems encountered. Credit 3(3-0).



## **VOCATIONAL SCHOOL**

---

### **I. Trades and Industries**

**A. Auto-Mechanics**

**C. Carpentry**

**C.M. Cabinet Making and Upholstering**

**S.R. Shoe Repairing**

**T. Tailoring**

**Sec. Sc. Secretarial Science**

**M. Masonry**

**Pl. Plumbing**

**W. Welding**

**EW. Electric Wiring**

### **II. Short Course**

**A. Agricultural**

**Dress Making and Garment Construction**



## VOCATIONAL COURSES

### AUTO MECHANICS

**Training Objectives:** This is a carefully organized course designed to prepare these young men and women inclined to be skilled mechanics. The practical side of the course has been so emphasized that upon the completion of the trade students will be qualified to become owners or managers of an auto service business as well as skilled mechanics in this field. A diploma will be awarded to those students satisfactorily completing the course.

**Length of Course:** Three years of nine months each depending upon the student's experience and ability.

**Amount of time required in shop:** Twenty hours per week, thirty-six weeks per year.

### CURRICULUM

During the first two years in the shop the student is expected to lay a broad foundation for later specialization. To secure this end the following essential courses are recommended:

|                                                 |         |
|-------------------------------------------------|---------|
| Mathematics, C. I. 335, 336.....                | 6 Hrs.  |
| Military Science 211, 212, 213, 221, 222, 223   |         |
| or                                              |         |
| Physical Education .....                        | 12 Hrs. |
| Education 211, 212, 213.....                    | 3 Hrs.  |
| English 211, 212.....                           | 10 Hrs. |
| Machine Shop Practice, M. E. 328, 329, 330..... | 6 Hrs.  |
| Welding 311, 313.....                           | 5 Hrs.  |
| Carpentry 311, 312.....                         | 6 Hrs.  |
| Electives .....                                 | 10 Hrs. |

### SHOP COURSES

**411. Benchwork.** A study will be made and laboratory work given in thread cutting with dies and taps, clipping, filing, drilling, sharpening and use of small tools.

**412. Maintenance and Service.** Lecture on the principle of operation of maintenance of all chassis parts. Laboratory work will be on the disassembly and reassembly of transmissions, rear ends, universal joints, shock absorbers, and braking systems.

**NOTE:** All large equipment and special tools are furnished by the College but the student is expected to furnish a set of small tools and protective clothing.

**413. Power Plant.** Lecture, demonstration and laboratory work will be undertaken on the principle of the four-cycle engine, fuel and cooling systems.

**421. Power Plant.** General shop practice is designed to give a student experience in general overhaul of engine including adjusting of bearings, grinding valves, and installing rings.

- 422. Power Plant.** Instruction will be given on use of the boring bar, connecting rod aligners, use of cylinder hone, reonuers, and fitting of pistons.
- 423. Electrical System.** The fundamental principles of the electrical system, including magnetism, generators, starters, voltage and current regulators, automatic chalves, ignition wiring and batteries will be studied.
- 431. Body Work.** Lecture and demonstration on the use and care of body tools, along with laboratory is designed to give a student skill in body work.
- 432. Painting.** This course is designed to give the student experience and knowledge of spraying of various enamels and lacquers.
- 433.** A study will be made of problems pertaining to shop methods, estimating, and trouble shooting.

## MASONRY

**Training Objectives:** The objective of the program is to develop in the student skills and knowledge in masonry that he may successfully use in practical construction.

**Length of Course:** Three years of nine months each depending upon student's experience and ability.

**Amount of Time in Shop:** At least twenty hours per week, thirty-six weeks each year.

**Related Subjects:** Students may be required to take additional courses in English 211, 212, 213, Business Law, Real Estate, Architectural Drawing, Mathematics, Estimating, Carpentry (framing, making and placing door and window frames, scaffolding; rough carpentry, depending upon the individual experience and training of the student, and recommendation of the faculty).

## COURSES

### First Year

- 412. Bricklaying.** Construction of arches and walls of differ—— piers and pillows, common bond walls, and structural bonds. Credit 10(0-20).
- 412. Bricklaying.** Construction or arches and walls of different bonds. Common bond, 90° corners, Flemish and English bond corners. Sills for doors and windows, setting of frames and flue construction. Credit 10(0-20).
- 413. Bricklaying.** Construction of buildings, blueprint reading and scaffold construction. Credit 10(0-20).

### Second Year

- 421. Tile and Stone Construction.** Hollow tile walls, hollow brick and stone piers, pilasters with battered sides and structural bond. Credit 10(0-20).
- 422. Tile and Stone Construction.** Construction of segmental arches, semi-circular, and flat arches. Credit 10(0-20).
- 423. Tile and Stone Construction.** Laying off buildings. Pattern bond walls, mantels and chimney construction of brick or stone, irregular corners and fireplaces.

### Third Year

- 431. Plastering and Cement Work.** Study and use of tools, putting up laths, first coat and plaster work. Credit 10(0-20).
- 432. Plastering and Cement Work.** Concrete mixing, outside construction of walks and piers. Finish plaster coats, paving. Credit 10(0-20).
- 433. Plastering and Concrete Work.** Over plaster construction, cement to walk construction, laying of foundation and piers. Credit 10(0-20).

---

## SHOE REPAIRING AND LEATHER WORK

**Training Objectives:** To give the student a practical knowledge of the subject matter as well as the necessary training in the related subjects to permit both the operation and maintenance of a shoe repairing and leather work shop, and as skilled workers in the trade.

**Length of the Course:** Two years of nine months each.

**Time in Shop:** A minimum of 20 hours per week for 36 weeks each year.

Students may be required to take additional courses, such as English, business and mathematics, etc., depending upon the individual experience and ability of each student and the recommendation of the faculty.

- 411-SR. Threads and Hand Tools.** The study of threads, breaking threads, making waxed ends and twisting bristles on ends. Making various stitches used in hand sewing. The names, care and use of hand tools, sharpening knives and other hand tools.
- 412-SR. Construction.** The methods of fastening the parts of shoes together. The construction of shoes is then studied to enable one

to make the proper repairs. Tempering and preparing leather for soles. Cutting off old soles, skiving shanks and preparing shoes for half soles and heels.

**413-SR. Processing.** Ink, waxes, dyes, cement and nails are studied. Cutting sole leather to save. Fitting soles and heels for nailing. Putting lifts on wood heels. Inking, burnishing and finishing shoes on power machines. The care, operation and use of the patching machine is studied. Special attention is given to rip sewing and neat upper patching.

**421-SR. Bench Work.** All students having satisfactorily completed their first-year course in shoe-repairing will begin their second-year course in shoe-repairing with a brief review of the first year's work. Fitting half soles and heels on men's welted shoes. Putting top lifts and half soles on women's welted shoes. Putting new bottoms on men's and women's shoes. Care and use of the buffer and burnishing wheels of finishing machines. Sewing of welts and cutting of inner soles.

**422-SR. Machine Operation.** Attaching wood heels on women's shoes. Study and operation of the sole cementing process. Care and operation of the edge trimmer and setter. Sharpening edge cutters. Manipulation and care of the power stitcher. Stitching soles on curved and straight needle stitchers.

**423-SR. Finishing and Shop Management.** Problems pertaining to high-class repair work. Changing suede shoes to glazed finish. Dyeing shoes pastel shades and the reglazed process of changing colors. Problems and methods of buying materials. The operation and business methods of the modern commercial shop.

---

## CARPENTRY

**Training Objectives:** This course aims to develop in the student the knowledge and skills necessary for practical work in carpentry. related technical knowledge, English, mathematics and drafting are also included.

**Length of Course:** Three years of nine months each.

**Amount of Time in the Shop Per Year:** Twenty-five hours per week for thirty-six weeks. Total of 900 hours.

### First Year

**411. Benchwork.** This course consists of the study and practice of the fundamental operations in woodworking. Emphasis is placed upon the care and use of the most common woodworking tools.

**412. Benchwork.** Projects involving the various types of joints used by the carpenter are selected. Also the proper care and use of carpentry tools is stressed.

**413. Building Repair.** A certain amount of repair work is required. Only such repair work is selected as will give the student a fundamental understanding and appreciation of the principles of building construction.

### Second Year

**421. House Framing.** Intensive study will be made of the framing square and its special uses to the carpenter. Methods of placing sills, type of girders, placing and bracing studs will be studied.

**422. House Framing.** Practical work in door and window framing will be given. The various types of roofs will be constructed in miniature. Application of the steel square to roof construction will be emphasized.

**423. House Framing.** This course involves study of western or platform construction, balloon and braced frame construction, the making and placing door and window frames, covering floors, insulating materials, inferior trim selecting and installing hardware.

### Third Year

**431-C. Stair Building.** Jobs involving the laying out, cutting and placing of straight run stringers, platform flights, dog leg flights, treads, riser, newels, skirting boards, rails, balusters, and forms for concrete work.

**432-C. Roof Construction.** Jobs involving the cutting, placing and nailing of common, jack, valleyed hip rafters by the use of the steel square.

**433-C. Blueprint Reading and Estimating.** Principles of orthographic projection. Drawing of plans and details of buildings. Estimating quantities.

---

## CABINET MAKING AND UPHOLSTERING

**Training Objective:** To develop skilled workers in the manufacturing and repairing of furniture and cabinets. English, mathematics and drafting are required according to the needs of the students.

**Length of Course:** Three years of nine months each.

**Amount of Time in the Shop per Year:** Twenty-five hours per week for thirty-six weeks. Total of 900 hours.



**First Year**

- 411. Care and Use of Tools.** This course includes studying all common woodworking tools, sharpening cutting tools—grinding and whetting plane bits and chisels, filing auger bits, and sharpening saws. Projects involving the fundamental principles of joinery are provided. Credit 10(0-20).
- 412. Elementary Joinery.** The student works on projects involving joinery with a view of gaining a high degree of dexterity. Square and circular table tops are built up with the use of glue. The work is performed mostly by hand. Credit 10(0-20).
- 413. Advanced Joinery.** Much practice is given the student in the construction of projects involving mortise and tenon joints and dovetail joints. Projects such as tables, stands, cabinets, and chests give the students an opportunity to make practical application of joinery and at the same time to gain useful skills. Credit 10(0-20).

**Second Year**

- 421. Wood Turning.** Care and use of woodworking machinery. Construction of a few simple projects involving spindle turning. Emphasis is placed on gaining facility with the turning tools and in duplicating pieces. Credit 10(0-20).
- 422. Wood Turning.** Additional practice in spindle turning. Practice in face plate turning and in taper turning. Repairing broken table and chair legs so as to get experience in duplicating parts. Credit 10(0-20).
- 423. Wood Finishing.** Filling, staining, waxing, varnishing, and enameling; refinishing of furniture. Credit 10(0-20).

**Third Year**

- 431. Upholstering.** Projects involving the various types of caning, seat weaving and upholstery without springs. Credit 10(0-20).
- 432. Upholstering.** Upholstering frame structures, springing up, methods of fastening webbing, stuffings, coverings; the use of gimp, nails, springs, hard-edge upholstery, and spring-edge upholstery. Credit 10(0-20).
- 433. Cabinet Making and Upholstering.** The development of a comprehensive project involving cabinet work, finishing, and upholstery. This project should involve most of the fundamentals of cabinet making and upholstery. Credit 10(0-20).

## PLUMBING AND STEAMFITTING

**Objectives:** This course is designed to prepare skilled mechanics in the field of plumbing and steamfitting. In addition to courses listed, the department reserves the right to require trainees to spend at least one summer on grounds for practical work, unless they can furnish satisfactory evidence that they have had adequate practical experience in their trade.

**Length of Course:** Three years of nine months each depending upon the student's experience and ability.

**Amount of Time in Shops:** 20 hours a week, 36 weeks per year.

**Related Subjects:** In order to develop a high-grade plumber, trainees are required to take subjects in related fields, such as mathematics, physics, chemistry, drawing, estimating, English composition and business.

**411. Care and Use of Tools:** History of Plumbing: Duties and responsibilities of a plumber. Cutting, threading, reaming, and simple fittings. Study of plumbing material. Practical applications. Credit 10(0-20).

**412. Drainage and Vent Pipe Installations:** Drainage pipe arrangements. Supports and connections between pipes. Applications, Sewage disposal (field trips). Prerequisite Pl. 411. Credit 10(0-20).

**413. Traps in Drainage Systems.** Installation of traps and branch connections. Minor repairs. Prerequisite Pl. 412. Credit 10(0-20).

### Second Year

**421. Plumbing Laws and Regulation.** Wiping joint, soldering and lead work. Blue print reading. Prerequisite Pl. 413. Credit 10(0-20).

**422. Water Supply.** Cold and hot water. Water treatment method and purification (field trips). Prerequisite Pl. 421. Credit 10(0-20).

**423. Estimating and Installation.** This course consists of determining the cost of labor and materials for various installations. Prerequisite Pl. 422. Credit 10(0-20).

### Third Year

**431. Steam and Hot Water.** The various heating systems. Tools and equipment used in steamfitting. Sheet metal work. Mechanical equipment of buildings. Prerequisite Pl. 423. Credit 10(0-20).

**432. Welding and Brazing.** Acetylene and electric welding in pipe work. Prerequisite Pl. 431. Credit 10(0-20).

- 433. Copper Tubing and Fittings.** Study and use of copper fittings. Soldering and lead work. Applications. Prerequisite 432. Credit 10(0-20).

### CERTIFICATE IN SECRETARIAL SCIENCE

Students interested in the commercial field either as secretaries or teachers are urged to complete the four-year course and graduate with a degree. In cases where this cannot be done they may complete a two-year course in thi field by qualifying for the duties of the stenographer-typist.

### SUGGESTED PROGRAM FOR SECRETARIES AND STENOGRAPHERS

#### Two Year Course

|                             |     |      |
|-----------------------------|-----|------|
| Eng. 211, 212, 213.....     | 15  | hrs. |
| Math. 311, 312, 315.....    | 15  | hrs. |
| Sec. Sc. 314, 315, 316..... | 15  | hrs. |
| Sec. Sc. 317, 318, 319..... | 7 ½ | hrs. |
| Sec. Sc. 321, 322, 323..... | 19  | hrs. |
| B. A. 339.....              | 5   | hrs. |
| Phys. Ed. ....              | 6   | hrs. |
| B. A. 352.....              | 5   | hrs. |
| Electives .....             | 15  | hrs. |

This course is carefully planned for the purpose of training prospective candidates for various stenographic, typing, and clerical positions. Under immediate supervision students are trained to do simple routine work requiring care and accuracy in details. Special attention will be given to instruction in preparation for Civil Service examinations.

- 314. Shorthand.** This course includes a study of word building and the general principles outlined in the Gregg Shorthand manual and speed studies. [The first five lessons are thoroughly mastered during this quarter.] Credit 5(5-0).
- 315. Shorthand.** This course is a continuation of 314 and with added emphasis on transcription of simple letters and documents. Pre-requisite: 314. Credit 5(5-0).
- 316. Shorthand.** The principles are included early in this course and emphasis is placed on difficult dictation, speed test and reporting speeches. Prerequisite: 315. Credit 5(5-0).
- 317. Typewriting.** The typewriting course covers a working knowledge of the use of all parts of the typewriter, a thorough command

of the keyboard by means of the touch system, rhythmic drills, practice in writing words, etc. Credit 2.5(0-5).

- 318. Typewriting.** This course is concerned with tests and drills for speed and accuracy in the transcription of easy material from printed matter. Prerequisite: 317. Credit 2.5(0-5).
- 319. Typewriting.** Technical typewriting is emphasized in this course by allowing the student to spend most of his time on tabulation, stencil cutting, report making and other practical duties. Prerequisite: 318. Credit 2.5(0-5).
- 321a, 321b. Office Training.** Students will be required to do practice work in the offices and plants of the College and in and around Greensboro for a period of 13 hours for one quarter. A study is also made of the executive work connected with offices of many types. Two hours each week are devoted to discussion of the various problems found in these offices. Prerequisite: Secretarial Science 323. Credit 8(2-13). Credit, lecture alone, 2(2-0). Laboratory alone, 6(0-13).
- 322. Advanced Stenography.** Advanced stenography is a view of principle and practices of shorthand and typewriting for the purpose of developing speed. Emphasis is put on the details of report making, taking dictation from speakers and other specialized fields of shorthand and typewriting. Open to all persons who have had Gregg shorthand. Prerequisite: Sec. Sc. 316, 317. Credit 5(5-0).
- 323. Secretarial Studies.** This course deals with the qualification, duties, responsibilities and work of a secretary. The other points considered are: Managing callers, handling correspondence, locating sources of information, making appointments, and other routine and special duties in systematizing the office. Prerequisite: Secretarial Science 316, 319. Eng. 213. Credit 6(2-8).
- 324. Office Appliances.** The purpose of the course is to give the student a general working knowledge of the leading office machinery and equipment. Students will be instructed in the use of adding, calculating, duplicating, name and data writing, billing, miscellaneous labor-saving and bookkeeping machines. This course can be given any quarter at the discretion of the instructor. Prerequisite: Sec. Sc. 317. Credit 1.5(0-3).

## TAILORING

**Objectives:** This course in tailoring covers three years of thorough training in making new garments such as: trousers, vests, coats, and overcoats. The course also includes repairing, altering and pressing which prepares a student for commercial work.

**Length of Course:** Three years of nine months each depending upon the student's experience and ability.

**Amount of Time in the Shop:** A minimum of 20 hours per week for 36 weeks each year is required.

**Related Subjects:** Students may be required to take additional courses such as English, business, freehand drawing and mathematics depending upon the individual experience and the ability of the student and the recommendation of the faculty.

### The Course of Study Follows:

#### First Year

**411-T. Care and Use of Tools.** Care of shop and tools. Position on tailor's bench. Practice in use of needle, thimble, and the fundamental stitches which are essential to hand sewing. Students are required to make at least nine different stitches to be placed in a scrapbook for future references. They are required to do various projects by hand and machine.

**412-T. Pocket Making.** Studying and classifying different types of pockets, such as piped pockets, side pockets, watch pockets and flap pockets. The top pockets, the half top pocket, and the quarter top are also studied in order to meet the demands of prevailing pocket style. Spacing and placing hip and side pockets.

**413-T. Trousers Constructing.** Joining and finishing uniform trousers, civilian trousers and overalls.

#### Second Year

**421-T. Trousers Continued.** Review of previous work. The sizes and length of trousers to be studied. The correct method of sewing on buttons, felling certain linings, making hemmed and cuff bottoms; shaping and pressing.

**422-T. Vest Making.** Studying the various styles and types of vest pockets. Studying materials. Correct method of making pockets, studying the different types of facing and fronts; making backs, making straps, padding and shaping fronts, adjusting edge stay tape, joining backs and fronts, spacing buttonholes, sewing on buttons.



**423-T. Working from Drafts.** Review Work. Cutting and making trousers and vests from draft, and block patterns, studying the styles of all garments previously made, comparing ancient and modern styles. The correct method of finishing past work in the proper manner is to be practiced.

### Third Year

**331-T Coats and Overcoats.** Review of previous work. Coat and overcoat making. Studying changes that affect work in citizen's garment making.

**432-T Materials and Colors.** Work on ordinary citizen's garment continued. Studying grades of material, estimate cost and quality of materials; working from drafts. Drafting trousers. Study of harmony in colors, drapery in garments.

**433-T. Measuring, Drafting and Cutting.** Measuring, drafting and cutting the garment studied. Students are required to make a suit to show proficiency. Study of current trade trends during the year.

**T-311. Fundamental Stitching.** The purpose of this course is to give students a thorough knowledge of the needle trade. Care and use of tools. Practice in use of needle and thimble. Study and application of the nine different stitches which covers constant practice from Unit 1, Job 1, to Unit 9, Job 9. Credit 3(0-6).

**T-312. The course is continued.** Classifying materials. Practice in making stitches and pockets of various sizes and types. Backstitching as a substitute for machine stitch is emphasized. Prerequisite 311. Credit 3(0-6).

**T-313. Review of previous work.** Study and classification of materials and colors. Making various types of pockets for trousers, vests and coats. Spacing and matching pockets. Practice in machine sewing is taught. Prerequisite 312. Credit 3(0-6).

### WELDING

**Training Objectives:** This is a carefully organized course designed to prepare young men and women inclined to become skilled Electric Arc Welders. The practical side of the course has been so emphasized that upon completion of the trade, students will be qualified to become owners or managers in Electric Arc Welding business as well as skilled mechanics in industry.

**Length of Course:** Nine months. The time, however, will depend upon the student's experience and ability to pass standard tests.

**Amount of Time in Shops:** Twenty hours per week for thirty-six weeks.

**Related Subjects:** Students may be required to take additional courses such as English, business, freehand drawing and mathematics depending upon the individual experience and the ability of the student and the recommendation of the faculty.

### Shop Courses

- 411.** A study will be made of different types of welders. The practice of Safety will be emphasized throughout the course, the study of the characteristics of the arc, head, positions, types of joints, locked in stresses in a weld due to contraction and preparation of work for welding. Practice: Laying straight continuous beads, parallel beads, beading in layers, filling space between beads, fillet welds in flat position, and horizontal position. Straight butt weld and method of making right angle, butt weld in horizontal position and, 54 degree horizontal. A study of different types of metals. Study and practice in skilled handling of welding machines as applied to practical jobs. Credit 10(0-20).
- 412.** Continuation of 411 with reviews and practice in fillet welds in vertical and overhead positions. And a study of locked in Stresses. Practice in back stepping. Practice with light coated rods. Credit 10(0-20).
- 413.** The practice of butt plate welding in flat, vertical and overhead positions. The American Welders Society Guide Bent Test. Credit 10(0-20).

---

### ELECTIVE VOCATIONAL COURSES

These courses are designed for those students pursuing the regular college courses, and yet desiring some training in vocational fields. The students are given thorough drilling and are required to attain a working knowledge of the subject matter. The courses are offered on the college level and regular college credit is allowed.

- 311. Auto Mechanics.** Construction and operation of power system. Fuel and cooling system. Lubrication, washing and polishing. Repair of tires. Credit 3(0-6).
- 312. Auto Mechanics.** Study of ignition system, wiring and lighting system, batteries and their care, starter and generators. Credit 3(0-6).
- 313. Auto Mechanics.** Minor repairs to safety devices. Brake adjustments. Credit 3(0-6).

- 311. Cabinet Making.** Care and use of hand tools, wood turning, pattern making, or work to suit individual interest. Credit 3(0-6).
- 312. Cabinet Making.** Care and use of power tools. Built-in cabinet. Small projects as desk, bookcase, or useful projects for the home. Credit 3(0-6).
- 313. Cabinet Making.** Inside trim. Varieties and characteristics of timber used in projects. Applying hardware, application of stain, varnish, shellac and enamel. Credit 3(0-6).
- 314. Cabinet Making.** General building and repair work in furniture and cabinet construction. Prerequisite I. A. 323. Credit 3(0-6).
- 311. Carpentry.** Study and use of hand tools. Types of joints used in construction. General framing and bracing. Credit 3(0-6).
- 312. Carpentry.** Blueprint reading and estimating of quantities. General construction of small projects of roof covering. Credit 3(0-6).
- 313. Carpentry.** Stair building. General roof construction. flooring. Experience on practical building. Credit 3(0-6).
- 314. Carpentry.** General building and repair work in carpentry. Prerequisite: I. A. 323 or the equivalent. Credit 3(0-6).
- 328, 329, 330. Machine Shop Practice.** See write-up under Mechanical Engineering. Credit 2(0-4). Each quarter.
- 311, 312, 314. Mechanical Drawing.** See write-up under Mechanical engineering courses. Credit 3(0-6).
- 311. Masonry.** Types of brick and their use in construction. Mortar mixing, thickness of joints, tools and practice work. Credit 3(0-6).
- 312. Masonry.** Study of mortars, bonds, joints, pointing up. Practice work. Credit 3(0-6).
- 313. Masonry.** Estimating, arches, lintels, chimneys and fireplaces. Practical jobs. Credit 3(0-6).
- 331. Masonry. Plastering.** Study and use of tools, putting on laths, first and second work. Experience. Credit 3(0-6).
- 332. Masonry.** Cement finishing. Study and use of tools marking and grading. Experience.
- 333. Masonry.** Concrete work. Mixing of fine and coarse aggregate effects of water ratio. Placing in forms. Form bracing. Study of strength of different mixes. Credit 3(0-6).

- 311. Plumbing.** Care and use of tools: History of plumbing: Duties and responsibilities of a plumber. Cutting, threading, reaming, and simple fittings. Study of plumbing material. Credit 3(0-6).
- 312. Plumbing.** Drainage and vent pipe installation: Drainage pipe arrangements. Supports and connections between pipes. Sewage disposal. Prerequisite Pl. 411. Credit 3(0-6).
- 313. Plumbing.** Installation of traps and branch connections. Minor repairs. Prerequisite Pl. 412. Credit 3(0-6).
- 311. Shoe Repairing.** The study of threads, making waxed ends and twisting bristles on ends. Stitches used in hand sewing. Care and use of hand tools for leather work. Credit 3(0-6).
- 312. Shoe Repairing.** Construction. Methods of fastening parts of shoes together. Tempering and preparing leather for soles. Preparing shoes for half soles and heels. Ink, dyes, cement and nails are studied. Bench work. Credit 3(0-6).
- 313. Shoe Repairing.** Machine operation. Care and use of power stitcher. Cement process. Sewing of welts and cutting. Curved and straight needle stitchers. Finishing. Changing of color. Credit 3(0-6).
- 317, 318, 319. Secretarial Science.** See typewriting under Secretarial Science.
- 311. Tailoring.** Care and use of tools. Practice in use of needle and thimble. Study and application of stitcher to different stitches. Credit 3(0-6).
- 312. Tailoring.** Study and classification of material. Practice in making pockets, buttonholes and backstitching. Machine sewing. Credit 3(0-6).
- 313. Tailoring.** Material and colors. Matching for color. Relining of coat and pockets. Pressing. Credit 3(0-6).
- 311. Welding.** Oxy-Acetylene Welding. The purpose of this course is to give students a knowledge and understanding of the welding process and its possibilities. A knowledge of the limitation of the process, of the apparatus used, of the common metals, their composition, their properties and methods of identification. Practice work. Credit 3(0-6).
- 312. Welding.** Continuation of 311 with practice in more difficult welds. Credit 3(0-6).
- 313. Welding.** Electric Arc Welding. A study of the different types of metals and welding rods to be used with steel, cast iron, malleable iron and more common metal. Skill in handling the welding machine as applied to practical jobs. Credit 3(0-6).

### CERTIFICATE IN DRESSMAKING AND GARMENT CONSTRUCTION

A dress making and garment construction course requiring the completion of two years work for a certificate.

The course consists of dressmaking and garment construction, related courses and other courses which will enable one to engage in the dressmaking business.

#### First Year

|                            | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------------|-------------|---------------|---------------|
| D.M. 411a, 411b, 411c..... | 5           | 5             | 5             |
| D.M. 123a, 419a, 415b..... | 3(2-2)      | 3             | 2             |
| Art 311 .....              | 3(0-6)      | .....         | .....         |
| Eng. 211, 212.....         | 5(5-0)      | 5             | .....         |
| P. Ed. 211.....            | 1(0-2)      | .....         | .....         |
| D.M. 415a .....            | .....       | 3             | .....         |
| D.M. 417 .....             | .....       | 2             | .....         |
| Clo. 124 .....             | .....       | .....         | 3             |
| D.M. 413, 419b.....        | .....       | .....         | 3             |
| P. Ed. 212.....            | .....       | .....         | 1(0-2)        |

#### Second Year

|                      | <i>Fall</i> | <i>Winter</i> | <i>Spring</i> |
|----------------------|-------------|---------------|---------------|
| D.M. 421a, 421b..... | 2(1-2)      | 2             | .....         |
| D.M. 419c .....      | 3           | .....         | .....         |
| D.M. 423, 427.....   | .....       | 3             | 3             |
| Clo. 121 .....       | 3           | .....         | .....         |
| Electives            |             |               |               |
| P. Ed. 213.....      | 1(0-2)      | .....         | .....         |
| P. Ed .....          | .....       | 1(0-2)        | .....         |
| Electives .....      | .....       | .....         | 10            |
| D.M. 422, 425.....   | .....       | 5             | 3             |

#### Suggested Electives:

- Typing
- Art Appreciation
- Shop Work
- Family Relationship
- Consumer Problems
- Home Economics Orientation

### DESCRIPTION OF COURSES

**D.M. 411a, 411b, 411c. Clothing Construction.** Fundamental process in clothing construction and sewing techniques are considered and used in the construction of daytime and sports clothing. The use of commercial patterns are used. Machine attachments are used. Sewing techniques are emphasized.



**123. Textiles.** See general catalogue.

**311. Freehand Drawing.** See catalogue.

**211. English Composition.** See catalogue.

**211. Physical Education.** See catalogue.

**D.M. 419a, 419b, 419c. Drafting and Draping.** Basic principles and rules for drafting foundation patterns and draping are studied and applied to skirts, dresses, blouses, and underclothing. Design in relation to structural lines in emphasized and accuracy of line-development, correct size and style are considered. These patterns may be used in clothing 412b and 412c.

**D.M. 413. Children's Clothing.** The course deals with patterns, selection and construction of suitable clothing for children.

**D.M. 415a-415b. Costume Designing.** Dress designing is developed through sketching, coloring and through draping. Enough historic costume is studied to note development of dresses from early times to present. Designing of costume is applied to various types of dresses. Individual note books are made and used as a background for further study. Details and accessories are considered.

**Clothing. 123—Crafts—**See general catalogue.

**D.M. 417. Personal Appearance.** A study is made of each student's figure and its relation to normal standard size. Consideration is given to diet, posture, walking, good grooming and other habits which constitute the making of an attractive figure. Coloring and types are analyzed and clothing selection made to bring all the most desirable characteristics of the individual student, and the different income level group.

**D.M. 422. Clothing Reclamation.** Practical experience in altering, remaking, redyeing and reclaiming clothing.

**D.M. 421a, 421b. Tailoring.** Problems in tailoring are presented in constructing coat and dress or skirt and blouse. Technique in finishing, lining and pressing are practiced.

**D.M. 423. Economics of Clothing.** The course includes a study of production, marketing institutions and the functions they perform. Factors governing consumer choices and ethics are studied. Study of problems include trends toward standardization, cooperatives, chain store growth, grading of garments and government regulations.

**D.M. 425. Clothing Construction.** An application of the techniques learned in construction and designing classes.

**D.M. 427. Shop Management.** The course considers ethics in business method, advertising and how to meet the public.

**432. Upholstering.** See general catalogue.

See catalogue for suggested electives.

**HONORS AND AWARDS, 1946**

✓ 1. **William H. Foushee Memorial Scholarship Cup**—Presented each year to the member junior with the highest scholastic average in Science.

**Winner**—Reginald R. Reeves, Greensboro, N. C.

✓ 2. **Kappa Phi Kappa Debating Key**—Awarded annually to the member of the graduating class having credit for two years of debating on the varsity team.

**Winners**—Robert Holt, Lexington, N. C.; Louise Nixon, Hertford, N. C.

✓ 3. **Rand-Hawkins-McRae Debating Trophy**—Awarded to the member of the graduating class having three years credit of debating on the varsity team.

**Winner**—Robert Holt, Lexington, N. C.

4. **Agricultural Association Awards**—To the members of the junior class having the best all-around record in some phase of agriculture or Home Economics.

✓ **Winners**—Miss Juanita Troxler, Greensboro, N. C.—Home Economics; Haywood Rogers, Creswell, N. C., Agriculture.

✓ 5. **Saslows Inc. Medals**—Awarded annually (1) to the member of the senior class graduating with the highest record in the school of Education and Science and (2) to the member of the graduating class with the highest record in the Social Sciences.

**Winners**—Louise M. E. Nixon, Hertford, N. C.; (2) Jessye Mims, New Orleans, La.

✓ 6. **M. F. Spaulding Medal**—To that member of the graduating class with the best four-year record in the school of Agriculture.

**Winner**—Marion C. George, Whiteville, N. C.

✓ 7. **John Merrick Medal**—Awarded to member of the graduating class with the best four-year record in the school of Mechanic Arts.

**Winner**—Archie Lytle, Marshville, N. C.

✓ 8. **Regal Jewelers Award**—To the member of the graduating class with the highest four-year record in the business department.

**Winner**—Nancy L. Griffin, Tryon, N. C.

✓ 9. **Athletic Award**—Granted to the student making the best record in the field of athletics.

**Winner**—Leroy Childs, Wilmington, N. C.

- ✓ **10. Register Keys**—Granted to the members of the graduating class who have rendered two years of meritorious service as members of the staff of the Register.

✓ **Winners**—Jessye Mims, New Orleans, La.; Louise M. E. Nixon, Hertford, N. C.; Alene Brannon, Salisbury, N. C.; Marion George, Whiteville, N. C.; Katrina Grandy Morris, Windsor, N. C.

- ✓ **11. Gate City Alumni Award**—Made possible by the Greensboro chapter of the Alumni Association to the member of the graduating class who has rendered the most distinctive and constructive service in interpreting the ideals of the college to the community.

**Winner**—Louise M. E. Nixon.

- 12. Choral Society Keys**—Awarded to the members of the graduating class who have rendered four years of meritorious service as members of the society.

**Winners**—(1) Eva Foster, Greensboro, N. C.; (2) Maggie Rosa Free, Greensboro, N. C.

- ✓ **13. Kappa Alpha Psi Scholarship Trophy**—Awarded to the member of the graduating class who has led the college in scholarship for five different quarters.

**Winner**—Nancy L. Griffin, Tryon, N. C.

- ✓ **14. A. K. A. Scholarship**—Awarded to the young woman member of the Freshman Class with the highest record in scholarship. This year there was a tie between Miss Mattie Long—Roanoke, Va., and Miss Yvonne Simmons, Greensboro, N. C.

- ✓ **15. Pan-Hellenic Council Scholarship**—A scholarship of \$50.00 made available by the Pan-Hellenic Council of the college to the student maintaining the highest average in scholarship and deportment for the current year.

**Winner**—Altheria Smith, Warsaw, N. C.

- 16. N. I. D. A. Award**—Provided by the college chapter of the National Intercollegiate Dramatic Association to the members of the graduating class who for a period of two years as members of the Richard B. Harrison Players have performed successfully in leading roles in major college plays.

**Winner**—Eva A. Foster, Greensboro, N. C.

- ✓ **17. George H. Keyes Award**—To the member of the graduating class with best record in farm Mechanics or agricultural Engineering.

**Winner**—James Warren, Spring Hope, N. C.

## DEGREES CONFERRED JUNE 3, 1946

## Ranking Students

|                          |                             |       |
|--------------------------|-----------------------------|-------|
| With highest honor ..... | Nancy Lou Griffin           | C. E. |
| With highest honor ..... | Robert Holt                 | B. S. |
| With highest honor ..... | James Floyd Lovell          | B. S. |
| With highest honor ..... | Louise Mary Elizabeth Nixon | B. S. |
| With high honor .....    | Lucinda Avery Dean          | C. E. |
| With high honor .....    | Bessie Elizabeth Derr       | C. E. |
| With high honor .....    | Mary Louise Plummer         | B. S. |
| With honor .....         | Catherine Julianne Derr     | C. E. |

## Bachelor of Science in Agriculture

|                          |                                         |
|--------------------------|-----------------------------------------|
| Lum Columbus Brown.....  | Route 2, Box 43, Bladenboro, N. C.      |
| Marion C. George.....    | Route 1, Box 75, Whiteville, N. C.      |
| James Melvin Holley..... | 130 E. Freemason Street, Edenton, N. C. |
| *James A. Patterson..... | Route 2, Box 111, Lillington, N. C.     |
| *Lonzo Wallace.....      | Route 3, Box 241, Lumberton, N. C.      |
| James Wiley Warren.....  | Route 1, Box 4, Spring Hope, N. C.      |
| *Jewitt L. White.....    | Box 235, Hampton Institute, Va.         |
| *James E. Wiggins.....   | Box 212, Warrenton, N. C.               |
| John Henry Winston.....  | 1301 Pitt Street, Greenville, N. C.     |

## Bachelor of Science in Home Economics

|                               |                                             |
|-------------------------------|---------------------------------------------|
| Ada Livona Alston.....        | General Delivery, Siler City, N. C.         |
| Irene Frances Battle.....     | P. O. Box 751, Nashville, N. C.             |
| *Mildred Price Blackwell..... | Route 5, Box 32, High Point, N. C.          |
| Lula Mae Boykin.....          | Route 2, Box 1-A, Clinton, N. C.            |
| Maude Lee Brady.....          | Route 1, Box A, Asheboro, N. C.             |
| Wilmar Allene Brannon.....    | 697 Shaver Street, East Spencer, N. C.      |
| Iris Louise Cassell.....      | P. O. Box 71, Mt. Holley, N. C.             |
| Hattie Marie Cherry.....      | Route 1, Box 19, Windsor, N. C.             |
| Lois Marilyn Clay.....        | Box 108, Woodsdale, N. C.                   |
| Ellen Clotelle Davis.....     | 719 S. Main Street, Marion, S. C.           |
| Gwendolyn Ophelia Franks..... | 424 Cross Street, Asheboro, N. C.           |
| Maggie Rosa Free.....         | 353 Regan Street, Greensboro, N. C.         |
| Beulah C. Griffin.....        | Route 1, Box 288, Fairmont, N. C.           |
| *Willie Jane Herring.....     | Route 1, Box 180, Garland, N. C.            |
| Rosa Beatrice Keyes.....      | 728 Cedar Street, New Bern, N. C.           |
| Dorothy Wingo Liggett.....    | 1824 Davis Street, Jacksonville, Fla.       |
| Jacqueline Ophelia Lyles..... | 31 Grail Street, Asheville, N. C.           |
| Maggie Ruth Mills.....        | Box X, Watha, N. C.                         |
| Ketrina Grandy Morris.....    | Route 1, Box 332, Windsor, N. C.            |
| *Mary Frances Simmons.....    | 409 N. Dudley Street, Greensboro, N. C.     |
| Lottie Mae Skelton.....       | 1214 East Washington St., Greensboro, N. C. |
| Ernestine Cary Smith.....     | 126 N. Dudley Street, Greensboro, N. C.     |

\* Degree conferred August 25, 1946.

- Minnie Lucille Sutton.....Box 393, Franklin, N. C.  
 \*Arvista Mearle Wiley.....Route 1, Box 28, Yanceyville, N. C.  
 Lois Evelyn Williams.....Route 2, Box 81, Rocky Point, N. C.

#### **Bachelor of Science in Business Administration**

- James Lee Gilliam.....P. O. Box 424, Windsor, N. C.  
 \*James W. Hill.....1303 Vermont Street, High Point, N. C.  
 Sadie Brooks Washington.....P. O. Box 152, Burlington, N. C.

#### **Bachelor of Science in Commercial Education**

- Lela Pilgrim Alexander.....1003 E. Market Street, Greensboro, N. C.  
 Annie Mariah Barber.....206 West Pantego Street, Belhaven, N. C.  
 \*Ruth Carol Brown.....1420 East Third Street, Winston-Salem, N. C.  
 Laura Julia Bullard.....415 West Franklin Street, Chapel Hill, N. C.  
 Viola Juanita Carroll.....Route 2, Box 28, Macon, N. C.  
 Lucinda Avery Dean.....144 Mitchell Street, Greensboro, N. C.  
 Bessie Elizabeth Derr.....909 Sixth Street, Hickory, N. C.  
 Catherine Julianne Derr.....909 Sixth Street, Hickory, N. C.  
 Nancy Lou Griffin.....P. O. Box 601, Tryon, N. C.  
 Anna R. Jacobs.....Route 2, Box 278, Clarkton, N. C.  
 Odessa Beatrice Jeffries.....809 King Street, Greensboro, N. C.  
 Angeline Priscilla Mebane.....Route 3, Box 109, Greensboro, N. C.  
 Ruth Nell McDaniels.....1431 E. Eldorado Street, Decatur, Ill.  
 Corine Powell.....Route 8, Box 61, Scotland Neck, N. C.  
 Geraldine Elizabeth Powell.....1010 Maypole Avenue, Norfolk, Va.

#### **Bachelor of Science in Architectural Engineering**

- Marion Franklin Taylor.....308 Independent Street, Kinston, N. C.

#### **Bachelor of Science in Fine Arts**

- \*Sherman Ulysses Williamson.....527 Best Street, Greensboro, N. C.

#### **Bachelor of Science in Industrial Arts**

- \*Joseph William Leonard.....939 South Main Street, Louisburg, N. C.  
 William Wesley Perry.....380 Port Republic Road, Waynesboro, N. C.

#### **Bachelor of Science in Mechanical Engineering**

- Archie David Lytle.....Route 3, Box 274, Marshville, N. C.

#### **Bachelor of Science in Electrical Engineering**

- \*Robert L. Brown.....1540 East 11th Street, Winston-Salem, N. C.  
 \*Leonard C. Clark.....Box 31, Radford, Va.  
 \*James Herbert Daniels.....520 Carolina Avenue, Rocky Mount, N. C.  
 \*John Kenneth Lee.....Route 6, Box 330, Greensboro, N. C.  
 \*Cardoza McCollum.....63 Hudson Street, Bennettsville, S. C.  
 \*William A. Skelton.....1214 East Washington St, Greensboro, N. C.

---

\* Degree conferred August 25, 1946.



## Bachelor of Science

|                                   |                                            |
|-----------------------------------|--------------------------------------------|
| *Aquila Anderson.....             | 31 Biltmore St., Greensboro, N. C.         |
| Alma Elizabeth Akers.....         | 238 Sixth Street, N. W., Roanoke, Va.      |
| *Zelma E. Belton.....             | 247 Cleveland Street, Danville, Va.        |
| Eva Vandelia Bluford.....         | 1529 W. Pike Street, Philadelphia, Pa.     |
| Rebecca Christine Boone.....      | General Delivery, Murfreesboro, N. C.      |
| Charles Sumner Brabble.....       | Route 3, Box 181, Portsmouth, Va.          |
| *Sylvester Brown.....             | Route 1, Box 102, White Oak, N. C.         |
| Sallie Belle Wathall Coleman..... | Box 273, Halifax, Va.                      |
| *Bernice Bobbie Cummings.....     | Route 1, Box 92, Trenton, S. C.            |
| *Lois L. Currie.....              | 319 Regan Street, Greensboro, N. C.        |
| *Horace N. Davis.....             | Route 2, Box 245, Wilmington, N. C.        |
| Richard Monroe Dean.....          | 144 Mitchell Street, Greensboro, N. C.     |
| Evelyn Bernice K. Dickens.....    | P. O. Box 28, Whitakers, N. C.             |
| Winnie Elizabeth Dixon.....       | Route 1, Box 104, Warsaw, N. C.            |
| *Geraldine East.....              | P. O. Box 186, Pilot Mountain, N. C.       |
| Lillie Mae Ford.....              | Route 3, Box 186, Whiteville, N. C.        |
| Eva Alice Foster.....             | 1502 East Market Street, Greensboro, N. C. |
| Bernice Lorine Fuller.....        | General Delivery, Guilford, N. C.          |
| *Mary B. Gaston.....              | Box 224, Elm City, N. C.                   |
| *Bessie Miller Gilmer.....        | 112 Benbow Road, Greensboro, N. C.         |
| Evelyn Lillian Hairston.....      | 725 Gillespie Street, Greensboro, N. C.    |
| Lois Prudence Hamilton.....       | 913 South Street, Norfolk, Va.             |
| Melvin Linwood Hardy.....         | 224 North 9th Street, Washington, N. C.    |
| *Julia Burnette Harrell.....      | Box 373, Wilson, N. C.                     |
| Nathaniel Harris.....             | Route 3, Box 461, Savannah, Ga.            |
| *Claudia Mildred Headen.....      | P. O. Box 521, Siler City, N. C.           |
| Oscar Harvey Hinnant, Jr.....     | 1301 Sloan Street, Greensboro, N. C.       |
| Waddell Eugene Hinnant.....       | 1301 Sloan Street, Greensboro, N. C.       |
| Robert Holt.....                  | Box 199, Lexington, N. C.                  |
| Elizabeth Jacqueline Howard.....  | 19 S. 12th Street, Wilmington, N. C.       |
| *Temptie Jones.....               | 114 Pender Street, Wilson, N. C.           |
| *James Keen.....                  | 800 Hanover Street, Roanoke, Va.           |
| William Anthony Lawson.....       | 1016 University Street, Kinston, N. C.     |
| *Elizabeth M. Ledbetter.....      | 18 Lodge Street, Wadesboro, N. C.          |
| James Floyd Lovell.....           | P. O. Box 206, Pilot Mountain, N. C.       |
| Alberta Peace Mebane.....         | Route 3, Box 258, Greensboro, N. C.        |
| Jessye Mae Mims.....              | 2524 Gravier Street, New Orleans, La.      |
| Louise Mary Elizabeth Nixon.....  | 65 King Street, Hertford, N. C.            |
| Sara Virginia Norcum.....         | 438 S. Henry Street, Williamsburg, Va.     |
| Ernest Melvin Olds, Jr.....       | 1801 East Lexington Street, Norfolk, Va.   |
| Isaac James Olds.....             | 1801 East Lexington Street, Norfolk, Va.   |
| *Veola D. Oldham.....             | 1209 Gorrell Street, Greensboro, N. C.     |
| Carrie Belle Payton.....          | Box 224, Grimesland, N. C.                 |
| Wilmer Alexander Pennix.....      | P. O. Box 435, Elon College, N. C.         |

\* Degree conferred August 25, 1946.

|                             |                                            |
|-----------------------------|--------------------------------------------|
| Mary Louise Plummer.....    | Box 63, Ridgeway, N. C.                    |
| Mary Lee Pope.....          | P. O. Box 5264, Murfreesboro, N. C.        |
| *Luther Powers.....         | Route 1, Box 4, Willard, N. C.             |
| *Marie Davidson Rivers..... | 499 East Cleveland St., Spartanburg, S. C. |
| Irma Roseboro.....          | Route 2, Box 12, Clarkton, N. C.           |
| *Louise Cherry Sherrod..... | Box 373, Wilson, N. C.                     |
| Sallie Berth Steverson..... | 403 Church Street, Chapel Hill, N. C.      |
| *Mary Horne Wilson.....     | Box 267, Biscoe, N. C.                     |

---

## CERTIFICATES, 1946

### Automobile Mechanics

Volious Lee Harris

Gladis Tuck

### Shoe Making

Lathan Wallace

### Tailoring

John Henry Best

Hazel Estelle Dowels

Esther B. Brooks

Fannie Naomi Ramseur

Thelma Loretta Turner

### Secretarial Science

Janie E. Blackledge

Geraldine Kennedy

Marion C. Harrell

Esther I. Meeks

Ometha D. Howard

Helen M. Stokes

Olga Bruce Warren

## ENROLLMENT BY COUNTIES IN NORTH CAROLINA

## Fall Quarter 1946-47

|                  |     |                   |    |
|------------------|-----|-------------------|----|
| Alamance .....   | 26  | Jones .....       | 16 |
| Alexander .....  | 5   | Lee .....         | 11 |
| Anson .....      | 22  | Lenoir .....      | 31 |
| Ashe .....       | 2   | Lincoln .....     | 3  |
| Beaufort .....   | 17  | McDowell .....    | 2  |
| Bertie .....     | 15  | Martin .....      | 20 |
| Bladen .....     | 21  | Mecklenburg ..... | 84 |
| Brunswick .....  | 13  | Montgomery .....  | 4  |
| Buncombe .....   | 21  | Moore .....       | 18 |
| Burke .....      | 5   | Nash .....        | 19 |
| Cabarrus .....   | 11  | New Hanover ..... | 39 |
| Caldwell .....   | 10  | Northampton ..... | 7  |
| Carteret .....   | 3   | Orange .....      | 10 |
| Caswell .....    | 21  | Onslow .....      | 10 |
| Catawba .....    | 12  | Pamlico .....     | 6  |
| Chatham .....    | 20  | Pasquotank .....  | 10 |
| Chowan .....     | 9   | Pender .....      | 18 |
| Cleveland .....  | 19  | Perquimans .....  | 2  |
| Columbus .....   | 13  | Person .....      | 10 |
| Craven .....     | 25  | Pitt .....        | 26 |
| Cumberland ..... | 27  | Polk .....        | 1  |
| Currituck .....  | 1   | Richmond .....    | 11 |
| Dare .....       | 1   | Randolph .....    | 8  |
| Davidson .....   | 14  | Robeson .....     | 50 |
| Davie .....      | 3   | Rockingham .....  | 22 |
| Duplin .....     | 58  | Rowan .....       | 37 |
| Durham .....     | 20  | Rutherford .....  | 8  |
| Edgecombe .....  | 25  | Sampson .....     | 8  |
| Forsyth .....    | 126 | Scotland .....    | 16 |
| Franklin .....   | 34  | Stanly .....      | 7  |
| Gaston .....     | 14  | Stokes .....      | 4  |
| Gates .....      | 2   | Surry .....       | 5  |
| Granville .....  | 16  | Union .....       | 9  |
| Greene .....     | 10  | Vance .....       | 9  |
| Guilford .....   | 554 | Wake .....        | 50 |
| Halifax .....    | 23  | Warren .....      | 29 |
| Harnett .....    | 10  | Washington .....  | 14 |
| Hertford .....   | 19  | Wayne .....       | 32 |
| Hoke .....       | 6   | Wilkes .....      | 6  |
| Iredell .....    | 10  | Wilson .....      | 15 |
| Jackson .....    | 7   | Yadkin .....      | 1  |
| Johnston .....   | 27  |                   |    |

**ENROLLMENT BY STATES****Fall Quarter 1946-47**

|                           |    |                      |      |
|---------------------------|----|----------------------|------|
| Alabama .....             | 26 | New Jersey .....     | 20   |
| Colorado .....            | 1  | New York .....       | 44   |
| Connecticut .....         | 3  | North Carolina ..... | 1985 |
| Delaware .....            | 1  | Oklahoma .....       | 2    |
| District of Columbia..... | 8  | Ohio .....           | 15   |
| Florida .....             | 41 | Pennsylvania .....   | 28   |
| Georgia .....             | 37 | Rhode Island .....   | 1    |
| Illinois .....            | 7  | South Carolina ..... | 184  |
| Indiana .....             | 5  | Tennessee .....      | 12   |
| Iowa .....                | 1  | Texas .....          | 7    |
| Kentucky .....            | 4  | Virginia .....       | 173  |
| Louisiana .....           | 4  | Washington .....     | 1    |
| Maryland .....            | 14 | West Virginia .....  | 2    |
| Massachusetts .....       | 3  | Wisconsin .....      | 1    |
| Michigan .....            | 2  | Puerto Rico .....    | 1    |
| Missouri .....            | 1  | Total .....          | 2635 |
| Nebraska .....            | 1  |                      |      |

**SUMMARY OF ENROLLMENT****Fall Quarter 1946-47**

|                        |             |
|------------------------|-------------|
| Senior Class .....     | 264         |
| Junior Class .....     | 366         |
| Sophomore Class .....  | 564         |
| Freshman Class .....   | 1114        |
| The Trade School.....  | 272         |
| Asheville Center ..... | 30          |
| Special Students ..... | 36          |
| <b>TOTAL .....</b>     | <b>2665</b> |

|                                                                      |             |
|----------------------------------------------------------------------|-------------|
| Total enrollment, excluding duplicate regular session, 1946-47 ..... | 2665        |
| Extension Division, 1946-47.....                                     | 35          |
| Summer Quarter 1946 .....                                            | 696         |
| Summer Quarter, Graduate Students .....                              | 124         |
| <b>GRAND TOTAL, 1946-47.....</b>                                     | <b>3520</b> |





# INDEX

|                                                                  | Page   |                                                       | Page           |
|------------------------------------------------------------------|--------|-------------------------------------------------------|----------------|
| Admission, College .....                                         | 32     | Foods .....                                           | 120            |
| Admission, Requirements .....                                    | 55     | Foreign Languages .....                               | 115            |
| Agriculture, Curriculum of....                                   | 48     | French .....                                          | 116            |
| Agriculture, School of .....                                     | 47     | Freshmen and Sophomores,<br>Required Courses .....    | 58             |
| Agricultural Education .....                                     | 83     | General Science .....                                 | 91             |
| Agricultural Economics .....                                     | 81     | Geography .....                                       | 160            |
| Agricultural Extension .....                                     | 25     | Geology .....                                         | 86             |
| Agricultural Sciences .....                                      | 69     | Grade Points .....                                    | 35             |
| Agronomy .....                                                   | 70     | Graduate Division .....                               | 62             |
| Animal Husbandry .....                                           | 73     | Graduation with Honors .....                          | 37             |
| Announcements .....                                              | 7      | Graduation<br>Requirements .....                      | 36, 48, 54, 56 |
| Architectural Engineering ....                                   | 86     | Graduates, 1946 .....                                 | 184            |
| Art, Department of (See<br>also Fine Arts).....                  | 111    | History .....                                         | 158            |
| Auto Mechanics .....                                             | 166    | History of the College.....                           | 26             |
| Awards, 1946 .....                                               | 182    | Home Administration .....                             | 121            |
| Bacteriology .....                                               | 89     | Home Economics .....                                  | 118            |
| Biological Sciences .....                                        | 88     | Home Improvement .....                                | 121            |
| Botany .....                                                     | 91     | Horticulture .....                                    | 77             |
| Business Administration and<br>Commercial Education .....        | 92     | Incompletes .....                                     | 35             |
| Cabinet Making and<br>Upholstering .....                         | 170    | Industrial Arts .....                                 | 123            |
| Calendar .....                                                   | 2      | Industrial Education .....                            | 127            |
| Carpentry .....                                                  | 169    | Loan Funds, Hicks-Mosley....                          | 42             |
| Certificates, 1946 .....                                         | 187    | Majors and Minors.....                                | 55             |
| Chemistry Department .....                                       | 96     | Mathematics .....                                     | 132            |
| Clothing .....                                                   | 120    | Marking System .....                                  | 34             |
| College Buildings .....                                          | 27     | Masonry and Bricklaying.....                          | 167            |
| College Calendar .....                                           | 3      | Master's Degree .....                                 | 64             |
| College Publication .....                                        | 4      | Mechanic Arts, School of.....                         | 53             |
| Commercial Education .....                                       | 92     | Mechanical Engineering .....                          | 135            |
| Commercial Industries .....                                      | 125    | Military Science and<br>Tactics .....                 | 139            |
| Course Numbering System....                                      | 35     | Music .....                                           | 141            |
| Credit Evaluation System.....                                    | 36     | New Students, Classifica-<br>tion of .....            | 33             |
| Degrees .....                                                    | 37, 64 | North Campus .....                                    | 30             |
| Degrees Conferred, 1946.....                                     | 184    | Nursery Education .....                               | 122            |
| Dressmaking .....                                                | 180    | Nutrition .....                                       | 120            |
| Enrollment of Students by<br>Counties in North<br>Carolina ..... | 189    | Officers of Administration<br>and of Instruction..... | 13             |
| Enrollment by States.....                                        | 190    | Organizations, Student .....                          | 37             |
| Economics .....                                                  | 162    | Physical Education .....                              | 145            |
| Education .....                                                  | 99     | Physics .....                                         | 152            |
| Education and Sciences,<br>School of .....                       | 55     | Plumbing and Steamfitting....                         | 172            |
| Electrical Engineering .....                                     | 103    | Political Science .....                               | 160            |
| English Language and<br>Literature .....                         | 106    | Poultry .....                                         | 75             |
| Entrance Requirements .....                                      | 32     | Pre-Medical Courses .....                             | 60             |
| Evening School .....                                             | 43     | Religion and Ethics.....                              | 155            |
| Faculty .....                                                    | 13     | Research .....                                        | 57, 156        |
| Failures, Removal of.....                                        | 35     | R.O.T.C. ....                                         | 139            |
| Fees and Expenses.....                                           | 44     | Rural Engineering .....                               | 80             |
| Fine Arts .....                                                  | 111    | Rural Education,<br>Program of .....                  | 67             |
|                                                                  |        | Rural Sociology .....                                 | 82             |

|                                  | Page |                               | Page   |
|----------------------------------|------|-------------------------------|--------|
| Schedule of Entrance             |      | Tailoring .....               | 175    |
| Examinations .....               | 11   | Teachers' Certificates,       |        |
| Scholarships and Prizes.....     | 40   | Regulations for .....         | 66, 99 |
| Secretarial Science .....        | 173  | Temporary Housing .....       | 31     |
| Self-Help .....                  | 46   | Trustees, Board of.....       | 12     |
| Shoe Repairing and               |      | Typewriting .....             | 173    |
| Leather Work .....               | 168  | Upholstering and Cabinet      |        |
| Shorthand .....                  | 173  | Making .....                  | 170    |
| Social Sciences .....            | 156  | Veterans, Announcements ....  | 11     |
| Sociology .....                  | 160  | Vocational Agriculture .....  | 83     |
| Spanish .....                    | 117  | Vocational Education .....    | 130    |
| Student Load .....               | 34   | Vocational School .....       | 165    |
| Student Loan Fund, Alumni..      | 42   | Welding .....                 | 176    |
| Student Organizations .....      | 37   | Women, Opportunities for..... | 61     |
| Students, Classification of..... | 34   | Zoology .....                 | 90     |
| Summer School .....              | 43   |                               |        |



